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OCEANS AND THE LAW OF THE SEA: LAW OF THE SEA

Report of the Secretary-General

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I. INTRODUCTION

1. The present report is submitted to the General Assembly in accordance with its resolution 49/28 of 6 December 1994, in which it requested the Secretary-General to report to it annually on developments pertaining to the implementation of the United Nations Convention on the Law of the Sea and on other developments relating to ocean affairs and the law of the sea. Pursuant to Assembly resolution 51/34 of 9 December 1996, the report also deals with the implementation of that resolution under its expanded mandate of "oceans and the law of the sea".

2. At the fifty-second session, under the item on oceans and the law of the sea, the General Assembly is also considering developments in the field of the conservation and management of living marine resources, dealt with under the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, pursuant to Assembly resolution 51/35 of 9 December 1996, and large scale pelagic drift-net fishing, unauthorized fishing in zones of national jurisdiction and fisheries by-catch and discards pursuant to Assembly resolution 51/36 of the same date. The relevant reports of the Secretary-General on these subjects have been issued under the symbols A/52/555 and A/52/557 respectively. Attention is also drawn to the report of the Secretary-General on "Impact of the entry into force of the 1982 Convention on the Law of the Sea on related existing and proposed instruments and programmes", (A/52/491), submitted pursuant to paragraph 15 of resolution 51/34.

3. The past year has been marked by an intensified call from the international community for a coordinated and integrated approach to oceans and the law of the sea issues, and a concerted search to define the role of the United Nations in that context. Two important institutional questions, namely, the periodic review of ocean issues and the strengthening of inter-agency cooperation in respect of the implementation of the Convention, were at the centre of the debate.

4. Following the entry into force of the Convention, the General Assembly emphasized the principle enunciated in the preamble to the Convention that the problems of ocean space are closely interrelated and need to be considered as a whole. The Assembly pointed to the strategic importance of the Convention as a framework for national, regional and global action in the marine sector, stressed the importance of the annual consideration and review of the overall developments relating to the law of the sea and decided, as the global institution having the competence to do so, to undertake an annual review and evaluation of the implementation of the Convention and other developments relating to ocean affairs and the law of the sea (resolution 49/28, preamble and para. 12).

5. The Secretary-General, in his first report under article 319 of the Convention (SPLOS/6, paras. 32-36), drew the attention of States parties, the International Seabed Authority and the competent international organizations to

section C.2 of Commission on Sustainable Development decision 4/15 of 3 May 1997,[1] dealing with section F of chapter 17 of Agenda 21.[2]

6. The Commission recommended that there should be "a periodic overall review by the Commission of all aspects of the marine environment and its related issues, as described in chapter 17 of Agenda 21, and for which the overall legal framework is provided by the United Nations Convention on the Law of the Sea". The recommendation was based on the following needs: "(a) to better identify priorities for action at the global level to promote conservation and sustainable use of the marine environment; (b) for better coordination among the relevant United Nations organizations and intergovernmental financial institutions; and (c) to ensure sound scientific, environmental, economic and social advice on these issues."

7. At its nineteenth special session, in June 1997, the General Assembly, with a view to improving global decision-making on the marine environment, endorsed the above recommendation of the Commission on Sustainable Development underlining the urgent need for a periodic intergovernmental review (see para. 188 below). The Assembly recommended that the results of such a review be considered under the consolidated agenda item entitled "Oceans and the law of the sea". The Meeting of States Parties to the Convention also underscored the need for coordination in oceans and law of the sea issues (see SPLOS/24, sect. VII).

8. In this context, the General Assembly, at its fifty-first session, pointed to the importance of the effective implementation of the Convention and its uniform and consistent application, as well as the growing need to promote and facilitate international cooperation on the law of the sea and ocean affairs at the global, regional and subregional levels (resolution 51/34, preamble).

9. Since the entry into force of the Convention in late 1994, the international community has devoted its attention mainly to the establishment of the institutions created under the Convention and to other institutional aspects, among them the role of the General Assembly in regard to oceans and the law of the sea. This period has also been one of consolidation as regards the consistent implementation of the Convention, of harmonizing ongoing international legal and policy developments and ensuring continued international cooperation within the framework of the Convention to deal with emerging issues.

10. The establishment of the new "treaty system of ocean institutions" is a major feature of the Convention, and this process, which began in 1983, is now complete. The recently established system of institutions consists of the International Seabed Authority, the International Tribunal for the Law of the Sea and the Commission on the Limits of the Continental Shelf. The Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, by virtue of the special responsibilities of the Secretary-General under the Convention and the oversight role of the General Assembly, is required to review and monitor all developments relating to the law of the sea and ocean affairs and to the implementation of the Convention. In this respect, it should be noted that the Convention does not provide for regular conferences of parties as do most similar conventions. Provision is made for Meetings of States Parties to conduct elections periodically and to adopt the budget of the Tribunal. Thus,

the Meeting of States Parties to the Convention may also come to be regarded as an important component of this new system of ocean institutions, particularly in giving advice with regard to the interpretation of provisions of the Convention.

11. While the Authority, the Tribunal, and also the Commission, will deal with specific maritime zones and/or specific aspects of ocean affairs and the law of the sea, the central programme on oceans at the United Nations concentrates on matters of overall implementation of the Convention. It focuses attention also on the monitoring of State practice and provides information, advice and assistance on the uniform and consistent application of the Convention in many fields of interest and concern for States and for international organizations. It will also support efforts to help States implement the Convention more effectively and derive greater benefits from the new ocean order.

12. The Secretary-General wishes, therefore, to emphasize the importance of the "oceans and the law of the sea" debate in the General Assembly, in relation not only to the development of the new treaty system of ocean institutions and the effective implementation of the Convention in its many aspects, but also for promoting international cooperation on important new issues in the field of law of the sea and ocean affairs. This role, which requires from each Government the establishment of a national integrated marine policy, should also entail consideration as to the proper choice of an intergovernmental forum for the discussion of issues of direct importance for the effective implementation of the Convention.

II. THE CONVENTION, THE IMPLEMENTING AGREEMENTS AND THE NEWLY ESTABLISHED INSTITUTIONS

A. United Nations Convention on the Law of the Sea

1. Status of the Convention

13. The United Nations Convention on the Law of the Sea (UNCLOS) entered into force on 16 November 1994, one year after the deposit of the sixtieth instrument of ratification. Since that date, the Convention has received 60 additional instruments of ratification, accession or succession, bringing the total number of States parties to 120.[3] Since the last report (A/51/645), 14 States have deposited their instruments of ratification and accession. The Asian and Pacific region has seen the largest increase in ratifications and accessions: six States, bringing the total number of parties for that region to 33. Africa continues to account for the highest number of States parties: 34 States. Other regions are represented as follows: Eastern Europe, 11 States parties; Latin America and the Caribbean, 25; Western Europe and Other States, 17. The ratification of and accession to the Convention by two important maritime nations, the Russian Federation in March 1997 and the United Kingdom of Great Britain and Northern Ireland in July 1997, undoubtedly has contributed to the strengthening of the legal regime established by the Convention. Although universal participation has not yet been achieved, the present trend and rate of ratification and accession augurs well for the future.

2. Declarations and statements under article 310

14. Declarations upon ratification or accession to UNCLOS have been made by 43 States. It should also be recalled that 35 States made declarations or statements upon signature. A number of States have made objections to the content of several of those declarations. All declarations and statements with respect to the Convention and to the Implementing Agreement on Part XI made before 31 December 1996 have been analysed and published in a recent Law of the Sea publication.[4] Among States which have ratified UNCLOS or acceded to it since the last report (A/51/645) was issued, eight have made declarations, namely Chile, Guatemala, Malaysia, Pakistan, Romania, Russian Federation, Spain and United Kingdom. Full texts of those declarations have been circulated to Member States in depositary notifications and have been published in Law of the Sea Bulletins Nos. 32, 33 and 34. They are also available through the Internet at http://www.un.org/Depts/los.

15. Although article 310 of the Convention allows States and entities to make declarations or statements regarding its application at the time of signature, ratification or accession, such declarations and statements should not purport to exclude or modify the legal effect of the provisions of the Convention. In paragraph 2 of resolution 51/34 the General Assembly calls upon States to ensure that any declarations or statements that are made at the time of signature, ratification or accession are in conformity with the provisions of the Convention. During the debate at the fifty-first regular session of the Assembly, some delegations expressed their concern that many States had not adhered to that requirement. An appeal was made to those States that had not done so to review their declarations and statements in the light of the provisions of articles 309 and 319. Most recently, the Russian Federation stated, in its declaration upon ratification, that it objected to any declarations and statements which had been made in the past or which might be made in the future upon ratification or accession, or made for any other reason in connection with the Convention, that were not in keeping with the provisions of article 310. The United Kingdom, in its declaration upon accession, also made the same statement. The declarations generating the most objections, apart from those concerning conflicting maritime claims or issues of sovereignty, involve the right of innocent passage through the territorial sea, transit passage through straits used for international navigation, archipelagic sea lanes passage and freedom of navigation and other internationally recognized uses of the seas, in the exclusive economic zone, as well as those uses which intend to subordinate the interpretation or application of the Convention to national law. In addition, certain States, in their declarations as well as in their respective national legislation, appear to have attempted to attach conditions which may modify the legal effects of the provisions of the Convention.

3. Declarations under articles 287 and 298

16. Since the last report was issued, several States have made declarations relating to articles 287 or 298. The Russian Federation declared that, in accordance with article 298, it did not accept the procedure, provided for in section 2 of Part XV of the Convention, entailing binding decisions with respect

to, inter alia, disputes relating to sea boundary delimitations, or those involving historic bays or titles; disputes concerning military activities; and disputes in respect of which the Security Council of the United Nations exercises the functions assigned to it by the Charter of the United Nations. Spain chose, in accordance with article 287, paragraph 1, to refer disputes to the International Court of Justice, while Italy declared that, for the settlement of disputes concerning the application or interpretation of the Convention and of the Agreement relating to the implementation of Part XI, it had selected the International Tribunal for the Law of the Sea and the International Court of Justice, without specifying that one had precedence over the other. Chile chose, in order of preference, the International Tribunal for the Law of the Sea and the special arbitral tribunal established under Annex VIII. As of 30 September 1997, a total of 19 States had made their choice of procedure as provided for in article 287. This information is reflected in Law of the Sea Information Circular (LOSIC) No. 6.

B. Agreement relating to the implementation of Part XI of the Convention

1. Status of the Agreement

17. The Agreement relating to the implementation of Part XI of the Convention was adopted on 28 July 1994 (General Assembly resolution 48/263) and entered into force two years later, i.e., on 28 July 1996. The Agreement is to be interpreted and applied together with the Convention as a single instrument, and in the event of any inconsistency between the Agreement and Part XI of the Convention, the provisions of the Agreement shall prevail. Any ratification or accession to the Convention made after 28 July 1994 represents consent to be bound by the Agreement as well. Furthermore, no State or entity can establish its consent to be bound by the Agreement unless it has previously established or establishes concurrently its consent to be bound by the Convention. States that were parties to the Convention prior to the adoption of the Agreement have to establish their consent to be bound by the Agreement separately, by depositing an instrument of ratification or accession.

18. As of 30 September 1997, the following States parties, which are applying the Agreement de facto and are members of organs established in accordance with its provisions, had not yet taken the necessary steps to become parties to it: Angola, Antigua and Barbuda, Bahrain, Bosnia and Herzegovina, Botswana, Brazil, Cameroon, Cape Verde, Comoros, Costa Rica, Cuba, Democratic Republic of the Congo, Djibouti, Dominica, Egypt, Gambia, Ghana, Guinea-Bissau, Guyana, Honduras, Indonesia, Iraq, Kuwait, Mali, Marshall Islands, Mexico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, Somalia, Sudan, Tunisia, United Republic of Tanzania, Uruguay, Viet Nam and Yemen. A total of 83 States parties to the Convention were, as of that date, bound by the Agreement.

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2. Notifications for provisional membership

19. The provisional application of the Agreement relating to the implementation of Part XI of the Convention terminated on the date of its entry into force, 28 July 1996. In accordance with the provisions of the Agreement, States and entities which had been applying it provisionally, and for which it was not yet in force, were able to continue to be members of the Authority on a provisional basis pending its entry into force for those States and entities. To continue provisional membership, they were required to send a written notification to the Secretary-General of the United Nations and, after 16 November 1996, could retain that status on the basis of a decision of the Council of the International Seabed Authority. The Council could approve extension of the provisional membership for a further period or periods not exceeding a total of two years, i.e., not later than 16 November 1998, provided that it was satisfied that the State or entity concerned had been making good-faith efforts to become a party to the Agreement and the Convention. At the resumed second session and at the third session of the International Seabed Authority, held at Kingston from 5 to 16 August 1996 and from 17 to 27 March 1997 respectively, the Council of the Authority approved a number of requests for the extension of membership on a provisional basis (ISBA/C/9, ISBA/3/C/3). As of 30 September 1997, 14 States (Bangladesh, Belarus, Belgium, Canada, Gabon, Lao People's Democratic Republic, Nepal, Poland, Qatar, South Africa, Switzerland, Ukraine, United Arab Emirates and United States of America) and one entity (European Community) had continued to be members of the Authority on a provisional basis.

C. Agreement for the implementation of the provisions of UNCLOS relating to the conservation and management of straddling fish stocks and highly migratory fish stocks

1. Status of the Agreement

20. The Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (the 1995 Fish Stocks Agreement) was adopted on 4 August 1995 by the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks. Unlike the Agreement relating to the implementation of Part XI of the Convention, the 1995 Fish Stocks Agreement must be interpreted and applied in the context of and in a manner consistent with the Convention. In contrast with the Agreement on Part XI, there is no direct linkage between the Fish Stocks Agreement and the Convention with respect to establishing the consent to be bound (see A/52/555).

21. The Agreement was opened for signature until 4 December 1996. As of that date, the Agreement had received a total of 59 signatures and, as of 30 September 1997, 15 States had ratified it. It will enter into force 30 days after the date of deposit of the thirtieth instrument of ratification or accession. Although the Agreement provides, in its article 41, for the possibility of its provisional application, no State or entity has notified the depositary of its wish to do so.

2. Declarations and statements under article 43

22. Pursuant to article 43 of the Agreement, four States (China, France, Netherlands, Uruguay) and the European Community made declarations upon signature, and four States (Mauritius, Norway, Russian Federation, United States of America) upon ratification or accession. Several of those declarations have been of an interpretative nature and dealt, inter alia, with flag State jurisdiction within the context of enforcement, conservation and management measures on the high seas and over the inspection of fishing vessels (arts. 21, 22 and 23). The declaration by the European Community also specified the competence of the European Community and that of its member States.

23. In its declaration the Russian Federation objected, in view of the provisions of articles 42 and 43 of the Agreement, to any declarations and statements made in the past or which might be made in future upon signature, ratification or accession to the Convention, or made for any other reason in connection with the Convention, that were not in keeping with the provisions of article 43 of the Agreement. Article 42 does not allow reservations or exceptions to the Agreement; article 43, as in the case of article 310 of the Convention, stipulates that declarations or statements should not purport to exclude or modify the legal effect of the provisions of the Agreement. All declarations have been circulated to Member States in depositary notifications and have been published in Law of the Sea Bulletins Nos. 30, 32, 33 and 34.

3. Declarations concerning settlement of disputes

24. Three States made declarations upon ratification pursuant to article 30 of the Agreement with respect to the procedures for the settlement of disputes: Norway declared that it did not accept an arbitral tribunal constituted in accordance with Annex VII of the Convention for certain categories of disputes; the United States chose a special arbitral tribunal to be constituted in accordance with Annex VIII; and the Russian Federation declared its understanding that procedures for the settlement of disputes referred to in article 30 included all the provisions of Part XV of the Convention applicable to disputes between States party to the Agreement.

D. Institutions under the Convention

1. International Seabed Authority

25. The International Seabed Authority is the organization through which States parties to the Convention shall, in accordance with the regime, established in Part XI of the Convention and the Implementing Agreement for the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction (the "Area"), organize and control activities in the Area, in particular with a view to administering the resources of the Area. As of September 1997, there were 135 members of the Authority, including 15 members on a provisional basis.

26. With the completion of its initial organizational phase covering the period from November 1994 to December 1996, the Authority this year commenced its

functional phase. The most significant development during 1997 was the approval of plans of work for exploration of seven registered pioneer investors: the Government of India; the Institut française de recherche pour l'exploitation de la mer (IFREMER)/Association française pour l'étude et la recherche des nodules (AFERNOD) (France); Deep Ocean Resources Development Co. Ltd. (DORD) (Japan); Yuzhmorgeologiya (Russian Federation); China Ocean Minerals Research and Development Association (COMRA) (China); Interoceanmetal Joint Organization (IOM) (Bulgaria, Cuba, Czech Republic, Poland, Russian Federation and Slovakia); and the Government of the Republic of Korea (ISBA/3/C/9). Exploration activities will be carried out for deep seabed minerals for the first time under the new legal regime for the world's oceans established by the Convention and the Implementing Agreement. The Council requested the Secretary-General of the Authority to take the necessary steps to issue the plans of work in the form of contracts incorporating the applicable obligations under the provisions of the Convention, the Implementing Agreement and resolution II of the Third United Nations Conference on the Law of the Sea.

27. In this context, a 15-year exploration contract between the contractor and the Authority will be issued, stipulating the rights and obligations of the two contracting parties. The contractor's security of tenure will be ensured. Other contract provisions will include joint reviews of exploration activities and environmental monitoring; contingency plans and measures to be taken in the event of emergencies likely to cause serious harm to the marine environment; obligations of contractors to conduct training programmes, maintain books and records, and submit annual reports; compliance of the contractor with safety, labour and health standards; and responsibility and liability of the contractor for damage.

28. During the current year, the Authority held the third and its resumed third sessions in Kingston, from 17 to 27 March and 18 to 29 August 1997 respectively. All four of its organs - the Assembly, the Council, the Legal and Technical Commission, and the Finance Committee - met during the sessions.

29. The period under review also witnessed progress in the work of the Authority in a number of substantive and organizational matters. The Convention and the Implementing Agreement envisage the adoption and application of rules, regulations and procedures necessary for the conduct of activities in the Area. The so-called "deep seabed mining code" will continue to be developed so that the deep seabed mining regime established by the Convention and the Implementing Agreement can be made operational. At present, the Legal and Technical Commission is considering the draft regulations on prospecting and exploration of polymetallic nodules in the Area, which also include the draft standard terms of exploration contract. The latest version of the draft regulations (ISBA/3/LTC/WP.1/Rev.3) reflect the work of the Commission as at the end of the resumed third session of the Authority. The Commission intends to complete its work on the draft regulations at an early stage in its next meeting. According to the Chairman of the Commission, the latest version of the draft regulations reflects the extensive consideration given to three key areas that it had identified in 1996: protection and preservation of the marine environment; annual reporting and the transfer of data by contractors to the Authority; and confidentiality of the information submitted.

30. The Authority has also initiated work on a number of other substantive matters within its area of competence. The focus of the substantive work is on data and information that can be analysed so as to estimate the magnitude of the potentially recoverable polymetallic nodule resources as well as to obtain an understanding of the probable environmental impacts of deep seabed mining (ISBA/3/A/4).

31. In 1998, for the first time, the administrative expenses of the Authority will be met by the assessed contributions of its members, including any provisional members. Up until 1997, the administrative expenses of the Authority had been met from the regular budget of the United Nations, following the provisions of paragraph 14 of section 1 of the annex to the Agreement relating to the implementation of Part XI of the Convention. During its resumed third session, the Assembly adopted the budget of the Authority for 1998 in the sum of US$ 4,703,900, and also decided to establish a Working Capital Fund of $392,000, with $196,000 to be paid in 1998 and $196,000 to be paid in 1999 (ISBA/3/A/9). The budget for 1998 indicates a modest increase in the administrative expenses of the Authority (approximately $0.5 million), in keeping with the evolutionary approach to the establishment of the Secretariat of the Authority approved by the Assembly in 1996. The Assembly also adopted a scale of assessment for the contributions of members of the Authority to its administrative budget and Working Capital Fund, based on the scale used for the regular budget of the United Nations (ISBA/3/A/10).

32. As an autonomous international organization, the Authority sought and, on 4 November 1996, was granted observer status at the United Nations (General Assembly resolution A/51/6). On 14 March 1997, the Secretary-General of the United Nations and the Secretary-General of the Authority signed a Relationship Agreement, the Agreement concerning the Relationship between the United Nations and the Authority, which since that date has been applied provisionally (A/52/260) pending its entry into force upon its approval by the General Assembly of the United Nations and the Assembly of the Authority. The Agreement was approved by the Assembly of the Authority at its forty-eighth meeting, on 27 March 1997 (ISBA/3/A/3). The General Assembly of the United Nations is considering the Agreement at its fifty-second regular session.

33. The Authority is in the process of finalizing a number of other organizational matters, including the Agreement between the International Seabed Authority and the Government of Jamaica regarding the headquarters of the Authority (the latest version, see ISBA/3/C/L.3); the Protocol on Privileges and Immunities of the International Seabed Authority (for the latest version, see ISBA/3/A/WP.1/Add.1); and the Financial Regulations of the International Seabed Authority (ISBA/3/FC/WP.1). The fourth session of the Authority is scheduled to be held at Kingston from 16 to 27 March 1998; the resumed fourth session is tentatively scheduled for 17 to 28 August 1998.

2. International Tribunal for the Law of the Sea

34. The International Tribunal for the Law of the Sea, having been established with the election of the 21 members on 1 August 1996 (SPLOS/14), commenced its functions in Hamburg, Germany, and has held three sessions. The inaugural

session was held from 1 to 31 October 1996, the second session from 3 to 28 February 1997 and the third session from 2 to 29 April 1997. The Tribunal will hold its fourth session from 6 to 31 October 1997.

(a) The Rules of the Tribunal

35. The members of the Tribunal decided that the Tribunal would, on a provisional basis, apply the draft Rules of the Tribunal prepared by the Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea. This would enable the Tribunal to deal with cases that may be submitted to it while considering the final draft of the rules prepared by the Preparatory Commission. The Tribunal decided that the paramount consideration should be for the Rules to be user-friendly, efficient and cost-effective to both the Tribunal and to the parties which might appear before it.

36. A Working Group of the Whole has undertaken a consideration of the rules and has reached informal conclusions on those rules dealing with the internal organization of the Tribunal and on most of the provisions regarding the proceedings in disputes. The Tribunal intends to complete its work during its fourth session in October 1997, after which the Rules will be formally adopted.

(b) Constitution of the Chambers

37. The Tribunal has also constituted three standing chambers in addition to the Seabed Disputes Chamber:

- The Chamber of Summary Procedure has been established in accordance with article 15, paragraph 3, of the Statute of the Tribunal (Annex VI of the Convention). The Chamber is composed of five members and two alternates, with the President and Vice-President of the Tribunal as ex-officio members. Its main function is to hear and determine a case at the request of the parties by summary procedure. The Chamber can, if the Tribunal is not in session or if a sufficient number of members is not available, prescribe provisional measures in the exercise of the Tribunal's powers;

- The Chamber for Fisheries Disputes has been established in accordance with article 15, paragraph 1, of the Statute and is composed of seven members. It will deal with those disputes concerning the exploitation and management of marine living resources which the parties agree to submit to it;

- The Chamber for Marine Environment Disputes has been established in accordance with article 15, paragraph 1, of the Statute and is composed of seven members. It will deal with disputes relating to the protection and preservation of the marine environment which the parties agree to submit to it;

- The Seabed Disputes Chamber is the most important chamber in the Tribunal. It was established in accordance with article 14 of the Statute and deals with disputes with respect to activities in the Area as defined in article 187 of the Convention and the Implementing Agreement on Part XI. The Chamber is composed of 11 members selected to reflect the world's principal legal systems and according to the principle of equitable geographical distribution.

(c) Working groups and committees

38. During the first three sessions, preliminary consideration of certain aspects of the work of the Tribunal was undertaken in ad hoc working groups. At the end of the third session, in order to deal with its internal organization, the Tribunal formally set up the following committees: Budget and Finance Committee, Committee on Rules and Judicial Practice, Committee on Staff and Administration, and Committee on Library and Publications.

(d) Budget of the Tribunal

39. The budget of the Tribunal for the first functional phase was adopted by the seventh Meeting of States Parties, held in New York from 19 to 23 May 1997 (SPLOS/24). The approved budget for 1998 amounted to a total of $5,767,169, consisting of: (a) a recurrent expenditure of $5,627,169 including $1,971,330 for the remuneration of the judges and $2,419,239 for salaries and related costs of staff (11 posts at the Professional level and above, and 16 posts at the General Service level); and (b) a non-recurrent expenditure of $140,000. There was no contingency provision made in the event a case is submitted to the Tribunal during 1998. Furthermore, any funds which might remain at the end of the current financial year will be transferred to the budget for 1998 under the item "Temporary assistance for meetings", and any costs for hearing a case during 1998 will have to be defrayed from within existing resources. It was, however, decided by the Meeting of States Parties not to prejudge the establishment of contingency funds in the future. The Meeting of States Parties, in approving the budget for 1998, endorsed the proposal that for the consideration of the next draft budget of the Tribunal, financial experts from States parties should be present and the text of the draft budget should be circulated well in advance of the next Meeting of States Parties.

(e) Agreement on Privileges and Immunities of the Tribunal

40. The Meeting of States Parties adopted the draft Agreement on the Privileges and Immunities of the International Tribunal for the Law of the Sea at its 25th plenary meeting. The Agreement was opened for signature on 1 July 1997 at United Nations Headquarters and will remain open for 24 months. The Agreement, which is open to all States and requires ratification by only 10 States to enter into force, has to date been signed by Greece, Norway and Senegal.

(f) Relationship with the United Nations

41. Pursuant to General Assembly resolution 51/204, of 17 December 1996, the Tribunal was on that date invited to participate in the sessions and the work of the General Assembly in the capacity of observer. Following discussions between

the Tribunal and the Office of Legal Affairs of the United Nations, it is expected that a Relationship Agreement will soon be concluded between the Tribunal and the United Nations. On 1 January 1997, the Tribunal became a member of the United Nations Joint Staff Pension Fund. The Tribunal has also decided to apply, mutatis mutandis, the regulations and rules of the United Nations common system to the staff of its Registry.

(g) Headquarters Agreement

42. Negotiations are almost complete on the draft Headquarters Agreement between the Tribunal and the Host Country (Germany). Pending the conclusion of the Agreement, the host country has adopted an interim ordinance which provides privileges and immunities for the Tribunal, its members and the staff of its Registry in the host country.

3. Commission on the Limits of the Continental Shelf

43. Twenty-eight candidates for membership to the Commission on the Limits of the Continental Shelf were nominated by States parties for the first election, which took place at the Sixth Meeting of States Parties to the United Nations Convention on the Law of the Sea (10-14 March 1997). The election was conducted in accordance with article 2, paragraph 3, of Annex II to the Convention (SPLOS/20).[5]

44. The following 21 members of the Commission were elected on 13 March 1997: Mr. Alexandre Tagore Medeiros de Albuquerque (Brazil), Mr. Osvaldo Pedro Astiz (Argentina), Mr. Lawrence F. Awosika (Nigeria), Mr. Aly Ibrahim Beltagy (Egypt), Mr. Samuel Sona Betah (Cameroon), Mr. Harald Brekke (Norway), Mr. Galo Carrera Hurtado (Mexico), Mr. André C. W. Chan Chim Yuk (Mauritius), Mr. Peter F. Croker (Ireland), Mr. Noel Newton St. Claver Francis (Jamaica), Mr. Kazuchika Hamuro (Japan), Mr. Karl H. F. Hinz (Germany), Mr. A. Bakar Jaafar (Malaysia), Mr. Mladen Juračić (Croatia), Mr. Yuri Borisovitch Kazmin (Russian Federation), Mr. Iain C. Lamont (New Zealand), Mr. Wenzheng Lu (China), Mr. Chisengu Leo Mdala (Zambia), Mr. Yong Ahn Park (Republic of Korea), Mr. Daniel Rio (France) and Mr. Krishna-Swami Ramachandran Srinivasan (India).

45. At its first session, held at United Nations Headquarters in New York from 16 to 20 June 1997 (CLCS/1), the Commission elected Mr. Kazmin as its Chairman by acclamation. Following consultations undertaken by the Chairman, Mr. Astiz, Mr. Awosika and Mr. Srinivasan were elected Vice-Chairmen and Mr. Croker was elected Rapporteur. All the officers were elected to a term of two and a half years.

46. The Commission considered its draft rules of procedure (SPLOS/CLCS/WP.1), prepared by the Secretariat at the request of the Fifth Meeting of States Parties (SPLOS/14, para. 44). The Commission adopted several of the rules and decided that the remainder would be subject to further discussion. Rules relating to the issue of confidentiality, which were not included in the original draft, were discussed during the session and incorporated into the draft rules for further consideration at the next session.

47. Several members of the Commission raised the issue of protection from potential financial liability resulting from allegations of breach of the rules of confidentiality. It was generally agreed that some provision would have to be made affording members of the Commission immunity from legal process in the performance of their functions. The Commission then established a subsidiary body to deal with the question of providing advice to coastal States in accordance with article 3, paragraph 1 (b), of Annex II to the Convention.

48. The Commission held its second session from 2 to 12 September 1997 in New York (CLCS/4). It continued consideration of those draft rules of procedure that had not been adopted at the first session. Following extensive deliberation, the majority of the rules were adopted. However, the rules dealing with delimitation disputes between States, the issue of confidentiality, as well as protection from possible financial liability of members of the Commission arising from potential allegations of breach of the rules of confidentiality, required further consideration. Consequently those provisions were redrafted and are now contained in annexes I and II to the Rules of Procedure (see CLCS/3). In this context, it should be noted that, according to rule 56, the annexes form an integral part of the rules.

49. The Commission then decided to adopt the rules of procedure and requested the Chairman to transmit the two annexes to the next Meeting of States Parties for consideration. It decided that annex I, containing provisions for handling a submission by a coastal State which may involve a delimitation dispute between States with opposite or adjacent coasts, or other cases of unresolved land or maritime disputes, would only be adopted after its consideration by the Meeting of States Parties. Annex II contains the rules on confidentiality, including provisions governing the classification and treatment of confidential material, as well as provisions for privileges and immunities of the members of the Commission in case of potential allegations of breach of confidentiality. Annex II would only be adopted if and when the issue of privileges and immunities of the members of the Commission, in dealing with confidential material and in the exercise of all their other functions, is resolved positively.

50. In addition, the Commission requested the Meeting of States Parties to clarify whether the terms "coastal State" and "a State" provided for in article 4 of Annex II to the Convention included a non-State party. This clarification, in the view of the Commission, is considered necessary for the application of rule 43 of its rules of procedure dealing with a submission by a coastal State.

51. The Commission also requested the Meeting of States Parties to consider a recommendation for the establishment of a trust fund to be administered by the Secretary-General of the United Nations. The fund would be used to meet the travel and accommodation expenses of members of the Commission from developing countries.

52. The Commission adopted its modus operandi, which deals with the internal functioning of the Commission. It also set up a number of technical working groups to formulate guidelines with respect to the data and information to be included in the submission by a coastal State and decided that in dealing with

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confidential data article VI of the Convention on the Privileges and Immunities of the United Nations should apply _mutatis mutandis_ to its members as experts on mission for the United Nations. In this regard, the Commission requested the Legal Counsel of the United Nations to provide it with a formal legal opinion as to the applicability of that Convention to the members of the Commission.

53. The Commission decided to hold its third session from 4 to 15 May 1998, and the fourth session from 31 August to 4 September 1998, both in New York.

E. Meetings of States Parties

54. The sixth and seventh Meetings of States Parties to the Convention, convened by the Secretary-General in accordance with article 319, paragraph 2 (e), of the Convention, took place from 10 to 14 March and from 19 to 23 May 1997 respectively. The sixth Meeting dealt primarily with the consideration of the draft Agreement on privileges and immunities of the International Tribunal for the Law of the Sea and the election of the 21 members of the Commission on the Limits of the Continental Shelf (SPLOS/20). The seventh Meeting adopted the Agreement on privileges and immunities, which was opened for signature on 1 July 1997 (SPLOS/24) and the budget of the Tribunal for 1998.

55. The eighth Meeting of States Parties to the Convention will be held in New York from 18 to 22 May 1998. Among the items on its agenda will be the draft budget of the International Tribunal for the Law of the Sea for 1999, the rules of procedure of the Meeting of States Parties and the role of the Meeting of States Parties in reviewing oceans and law of the sea issues. It will also have to consider, at the request of the Commission on the Limits of the Continental Shelf, the two annexes to the Rules of Procedure adopted by the Commission.

F. Dispute settlement mechanisms: lists of arbitrators and conciliators

56. The following developments relate to the three arbitration/conciliation dispute settlement mechanisms provided for under the Conventions.

57. The arbitral tribunal consists of five members who may be chosen from a list of arbitrators to be drawn up and maintained by the Secretary-General of the United Nations in accordance with Annex VII, article 2, of the Convention.

58. The Convention stipulates that if the parties to a dispute have agreed to submit the dispute to conciliation in accordance with article 284 of the Convention, the conciliation commission constituted according to article 3 of Annex V shall consist of five members chosen from a list to be drawn up and maintained by the Secretary-General of the United Nations in accordance with Annex V, article 2, of the Convention.

59. Regarding special arbitration, in accordance with Annex VIII, article 2, the following international organizations are required to draw up and maintain lists of experts in their specialized field and to send a copy of the lists to

the Secretary-General of the United Nations: in the field of fisheries, the Food and Agriculture Organization of the United Nations (FAO); for the protection and preservation of the marine environment, the United Nations Environment Programme (UNEP); for marine scientific research, the Intergovernmental Oceanographic Commission (IOC); and for navigation, including pollution from vessels and by dumping, the International Maritime Organization (IMO).

60. As of 30 September 1997, the Secretary-General has received updated lists from IMO, FAO and IOC. No list has yet been received from UNEP.

61. The names and relevant particulars of the experts on the various lists are available at the organizations concerned, as well as at the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs of the United Nations. They have also been published in the Division's Law of the Sea Information Circular and the Law of the Sea Bulletin.

III. MARITIME SPACE

A. Claims to maritime areas: regional review

62. The main developments during the past year, as of 30 September 1997, are briefly reviewed on a regional basis, as follows:

1. Africa

63. Two letters dated 24 and 31 March 1997 addressed to the Secretary-General of the United Nations by the Minister of Justice and by the Minister of Foreign Affairs of Eritrea, respectively, pointed out that a statement contained in last year's report (A/51/645, para. 26) to the effect that Eritrea did not have legislation relating to its maritime zones was incorrect. Both letters stated that: "On declaring its independence, the State of Eritrea incorporated into its maritime law the limits that had been in effect in Ethiopia". Proclamation No. 7 (from the Gazette of Eritrean Laws, 15 September 1991) proclaims that the 1960 Maritime Code of Ethiopia (with some minor changes) shall, as of 15 September 1991, serve as the Transitional Maritime Code of Eritrea. It also provides for the adoption of articles 2 to 5, 6 (f) and (g), and 28 to 31 from former Ethiopian Proclamation No. 137 of 1953, as amended in 1956. While articles 28 to 31 were not enclosed with the letters, articles 2 to 5, and 6 (f) and (g) provide, among other issues, for a 12-nautical-mile territorial sea from the line of maximum annual high tide, except for the Dahlac archipelago, and state that "in the case of pearl and other sedentary fisheries the seaward limit of the territorial waters shall extend to the limits of the said fisheries". For the Dahlac archipelago, the seaward limit of the territorial waters is "constituted by the quadrilateral consisting of lines joining the outermost north-eastern and south-eastern islands with the innermost north-western and south-western islands", by reference to former Ethiopian Federal Revenue Proclamation No. 126 of 1952.

2. Asia/South Pacific

64. As indicated in last year's report, in 1996 Japan adopted eight sets of legislation for the implementation of UNCLOS and the 1994 Implementation Agreement relating to Part XI. Three texts of legislation have been submitted to the United Nations. The Law on the Territorial Sea and the Contiguous Zone provides for a 12-nautical-mile territorial sea, except in the designated areas of the Soya Kaikyo, the Tugaru Kaikyo, the Tusima Kaikyo Higasi Suido, the Tusima Kaikyo Nisi Suido and the Osumi Kaikyo where it remains 3 miles wide. The Law also establishes a 24-nautical-mile contiguous zone and, in a matter not covered by UNCLOS, provides (if no other line has been agreed upon) for the use of the median line when the contiguous zone of Japan meets with the contiguous zone of another State. In such a situation, the Law also allows a shared contiguous zone with the State opposite to the coast of Japan up to 24 nautical miles from the Japanese baselines (excluding the territorial sea of the other country) for the exercise of the provisions of article 33, paragraph 1, of UNCLOS. The Enforcement Order of the Law on the Territorial Sea and the Contiguous Zone provides for the boundaries of the Seto Naikai (internal waters), defines the straight baselines of Japan and establishes the limits of designated areas and the outer limits of the territorial sea pertaining to the designated areas.

65. The Law on the Exclusive Economic Zone and the Continental Shelf establishes that zone and the extent of the continental shelf in accordance with UNCLOS. The law stipulates that an exclusive economic zone is established in which Japan exercises sovereign and other rights as provided for in Part V of UNCLOS. The zone comprises the maritime area and its seabed and subsoil thereof up to a line of 200 nautical miles from the baselines (excluding the territorial sea), or the median line with any country whose coast is opposite Japan's coast, unless otherwise agreed with the State concerned. As regards the continental shelf, Japan exercises sovereign and other rights of the coastal State in accordance with UNCLOS in the seabed and subsoil thereof of an area extending up to 200 nautical miles from the baselines (excluding the territorial sea) or the median line with an opposite State, or "the line which may be agreed upon between Japan and a foreign country as a substitute, and the line to be drawn to connect with the said line as prescribed in Cabinet Order". The area beyond 200 miles to be established by Cabinet Order in accordance with article 76 of UNCLOS, is also part of Japan's continental shelf. Japanese law, including penal provisions, is to apply to the exploration, exploitation, conservation and management of natural resources, artificial islands and structures and scientific marine research; other exploration and exploitation activities conducted in the exclusive economic zone for economic purposes; and other drilling activities in the continental shelf. It is further provided that Japanese law shall apply to artificial islands, installations and structures as if they were located within the territory of Japan. Finally, a provision is added in the Law that if UNCLOS provides otherwise with regard to the matters covered by the Law, the provisions of UNCLOS shall apply (see Law of the Sea Bulletin No. 35 in press).

66. The Republic of Korea has also communicated its new legislation to the United Nations. The Territorial Sea and Contiguous Zone Act of 1977, as amended in 1995, entered into force on 1 August 1996. The Act provides for a

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12-nautical-mile territorial sea and a 24-nautical-mile contiguous zone. The Act determines that in relation to other States with adjacent or opposite coasts, the delimitation shall be the median line, unless otherwise agreed upon with the States concerned. The Act regulates innocent passage through the territorial sea and describes sanctions for cases of contravention. Foreign warships and government ships operated for non-commercial purposes are requested to give prior notice of their passage to the Republic of Korea authorities concerned. In this context, it should be noted that UNCLOS provides that all ships, including those mentioned above, shall enjoy the right of innocent passage through the territorial sea; it also calls upon coastal States not to hamper the innocent passage of foreign ships except in accordance with UNCLOS.

67. The Enforcement Decree, which entered into force on the same date as the Territorial Sea and Contiguous Zone Act, i.e. on 1 August 1996, contains some of the provisions of the Act relating to innocent passage. It provides the coordinates for the drawing of straight baselines and establishes the outer limits of the territorial sea in the Korea Strait (3 nautical miles). The Exclusive Economic Zone Act, Act No. 5151, which entered into force on 10 September 1996, establishes the exclusive economic zone of the Republic of Korea and defines the exercise of rights and duties therein. The zone is defined in accordance with UNCLOS as the area of the sea extending up to 200 nautical miles from the baselines, excluding the territorial sea. The Law provides that in cases of States with opposite or adjacent coasts, the delimitation will be effected by agreement on the basis of international law. In the absence of such agreement, Republic of Korea law will apply up to the median line with the States concerned. The rights of the Republic of Korea in the zone are defined in accordance with article 56 of UNCLOS, and the rights and duties of other States and their nationals in accordance with article 58 of UNCLOS. The law provides also for the application of laws and regulations of the Republic of Korea in the exclusive economic zone, unless otherwise agreed upon with other States, to artificial islands, installations and structures, as well as for the exercise of hot pursuit for violation of the laws and regulations of the Republic of Korea in the zone (see Law of the Sea Bulletin No. 33).

68. Niue on 7 April 1997 adopted the Territorial Sea and Exclusive Economic Zone Act 1997, which repeals the previous Territorial Sea and Exclusive Economic Zone Act 1978 and its two amendments of 1984 and 1987. The Act, which entered into force on 7 April 1997, makes provision for a 12-nautical-mile territorial sea and a 200-nautical-mile exclusive economic zone and for the exploration and exploitation, and conservation and management of the resources of the zone. Article 6 establishes as the baseline for Niue's maritime zones the low-water line along the coast or, where there is a coral reef along any part of the coast, the low-water mark along the outer edge of the coral reef. Article 10 provides that where the median line between Niue and States with opposite coasts is at a distance less than 200 nautical miles from the baseline, that line shall be the outer limit of Niue's exclusive economic zone. The main focus of the Act is on the development and management of fishery resources. In this respect, the Act provides for the preparation of development and management plans for designated fisheries, unauthorized fishing and prohibited fishing methods, access agreements with other countries, licensing, authorized officers and

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observers for the enforcement of the Act, and sale, release and forfeiture of retained property.

69. On 13 May 1997, the Governments of the United States and Niue signed a Treaty delimiting a maritime boundary between their respective territories in the South Pacific. The 279-mile boundary runs in a general east-west direction with the islands of American Samoa to the north, and Niue to the south of the boundary. The treaty is subject to ratification by each side and will enter into force upon the exchange of instruments of ratification.

70. Pursuant to Pakistan's Territorial Waters and Maritime Zones Act 1976, the Government of Pakistan issued a notification on 29 August 1996 specifying the coordinates of points for the drawing of straight baselines from which all maritime zones of Pakistan are measured. In a note verbale dated 24 February 1997 addressed to the Legal Counsel of the United Nations, India stated that: "While the Government of India reserves its right to seek suitable revision of the baselines as notified by Pakistan insofar as they impinge upon India's sovereign jurisdiction, the Government of India unequivocally rejects as unacceptable the coordinate point (k) 23 33.90 N 68 07.80 E referred to in the notification, as it encroaches upon the territorial waters of India which are within its sovereign jurisdiction." (For the declaration by Pakistan and the protest by India, see Law of the Sea Bulletin No. 34.)

71. In a letter dated 18 October 1996, referring to the communication submitted by Kuwait, Saudi Arabia, Qatar and the United Arab Emirates concerning the Act of 2 May 1993 on its Marine Areas (see Bulletin No. 24), the Islamic Republic of Iran reiterated its position expressed previously that it does not consider all the provisions of UNCLOS to be customary law, and that, as contractual provisions, they are only binding on States parties. Referring in particular to a note verbale dated 20 August 1996 from Qatar, the Islamic Republic of Iran further stated, inter alia, that the method applied for the drawing of its straight baselines should not be considered unusual since it has been used by other States under similar circumstances. It points out furthermore that Decree No. 2/250-67 dated 22 July 1973 was approved and entered into force nearly 25 years ago, and was circulated in the United Nations Legislative Series, without any objection having been received from Qatar. The Islamic Republic of Iran added that the provisions of the Maritime Areas Act prohibits foreign military exercises and manoeuvres in its exclusive economic zone and continental shelf because these exercises "impede and/or cause harm to economic activities of coastal States, for which they enjoy sovereign rights". Furthermore, it stated that the requirement of obtaining prior authorization for the passage of some categories of foreign vessels was justified by the unique ecological situation in the highly vulnerable Persian Gulf (see Law of the Sea Bulletin No. 33).

72. The Treaty between the Government of Australia and the Government of the Republic of Indonesia establishing an Exclusive Economic Zone Boundary and Certain Seabed Boundaries was signed on 14 March 1997. The Treaty finalizes the maritime boundaries between the two countries in the Timor and Arafura Seas and the north-eastern sector of the Indian Ocean. It contains three different maritime boundaries "negotiated as a package", in a region where the water column jurisdiction of one overlaps the seabed jurisdiction of the other:

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(a) the exclusive economic zone and seabed boundary between Christmas Island and Java; (b) the complete exclusive economic zone boundary between the Australian mainland and Indonesia; and (c) the seabed boundary between the Australian mainland and Indonesia west of point A25, which was agreed to in the 1972 Treaty establishing permanent seabed boundaries in the area of the Timor and Arafura Seas. The Treaty lists the seabed rights and exclusive economic zone rights of the parties and provides for the areas of overlapping jurisdiction. It is subject to ratification by each side and will enter into force upon the exchange of instruments of ratification (see Law of the Sea Bulletin No. 35, in press). In a note verbale dated 28 August 1997, Portugal took note of the signing of the Treaty and stated that it "does not recognize the intended delimitation and contends that the signature of the treaty constitutes one violation more to the status of East Timor as a Non-Self-Governing Territory" (A/52/323-S/1997/691).

3. Latin America and the Caribbean

73. Jamaica has enacted the Maritime Areas Act of 1996, which repeals both the Territorial Sea Act and the Jamaica (Alteration of Boundaries) Order in Council of 1948. The Act, which came into effect on 28 November 1996, declares Jamaica an archipelagic State and provides for internal and archipelagic waters, a 12-nautical-mile territorial sea and a continental shelf defined in accordance with the Convention. The Act also establishes a 24-nautical-mile contiguous zone. Jamaica had already declared an exclusive economic zone by Act No. 33 of 31 December 1991. The archipelagic baselines, according to article 6, consist of straight baselines joining the outermost points of the outermost islands and drying reefs of Jamaica according to article 21. The delimitation of the continental shelf with other States shall be effected by agreement on the basis of international law in order to achieve an equitable solution. The Maritime Areas Act provides for the right of archipelagic sea lanes passage and defines the right of innocent passage in archipelagic waters and the territorial sea along with the empowerment of law-enforcement officers to stop, board, search and seize foreign ships when so warranted (see Law of the Sea Bulletin No. 34).

74. The Governments of Antigua and Barbuda, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines have made objections regarding three maritime boundary treaties in the Caribbean Sea relating to the island of Aves between Venezuela, on the one side, and three other countries, on the other; the treaty with the United States of 28 March 1978, which entered into force on 24 November 1980; the treaty with the Netherlands of 31 March 1978, which entered into force on 15 December 1978; and the treaty with France of 17 July 1980, which entered into force on 28 January 1983. The objection to these delimitation treaties is based on the fact that Aves Island has been granted the legal status of an island as provided for in UNCLOS, and therefore is recognized as having full capacity to generate a maritime jurisdiction. Antigua and Barbuda, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines argue that, as recognized in both customary international law and as reflected in UNCLOS, rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf. They further recall that, under the Convention, artificial islands and structures which have been erected adjacent to Aves Island are not entitled to a

territorial sea and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.

75. Although the treaties concerned were adopted before the negotiation of UNCLOS was concluded, they were largely based on the concept of a 200-nautical-mile exclusive economic zone (including the definition of islands), created during those negotiations. The protests clearly raise the issue of the interpretation of article 121, paragraph 3, of UNCLOS as regards the expression "rocks which cannot sustain human habitation or economic life of their own". At the request of Antigua and Barbuda, Saint Kitts and Nevis and Saint Vincent and the Grenadines, their protests have been circulated to the States Parties to UNCLOS (LOS/SP/1 dated 12 August 1997; LOS/SP/2 of 13 August 1997; and LOS/SP/3 of 9 September 1997).

76. The Government of Belize has objected to the declaration made by the Government of Guatemala upon ratification of the Convention, stating that it is inconsistent with articles 309 and 310 of the Convention. In particular, Belize contends that the historical rights over Bahía de Amatique claimed by Guatemala in its declaration purport to preclude the application of the definition of bays and the mechanism for the settlement of disputes, as contained in the Convention. Belize further contends that the Guatemalan declaration to the effect that "the territorial sea and maritime zones cannot be delimited until such time as the existing dispute is resolved" purports to make a reservation to, or to exclude or modify, the legal effects of articles 15 and 74 of the Convention.

4. Europe and North America

77. Concerning new legislation, Denmark has adopted Act No. 411 of 22 May 1996 on the Exclusive Economic Zone, which entered into force on 1 July 1996. The Act does not apply to the Faroe Islands and Greenland. The law establishes the median line as the line of delimitation with States with opposite coasts, in the absence of an agreement to the contrary. The rights of Denmark in the exclusive economic zone are defined in accordance with UNCLOS. Executive Order No. 584 of 24 June 1996 concerning Denmark's exclusive economic zone entered into force also on 1 July 1996. The Executive Order provides points of coordinates for drawing the delimitation line of the exclusive economic zone with opposite or adjacent States in the North Sea, the Skagerrak, the Kattegat, the Sound, the Great Belt and the Baltic Sea. The waters between Bornholm and Poland are not covered by the Act on the Exclusive Economic Zones until further notice. Pending an agreement with Poland, the limit of Denmark's fishery zone and continental shelf, in that area, will be the equidistant line. The Executive Decree includes a provision providing that the list of coordinates and the charts mentioned in it are to be deposited with the Secretary-General of the United Nations.

78. On 31 January 1997, Canada enacted the Oceans Act which repeals the Canadian Laws Offshore Application Act, chapter 44 of the Statutes of Canada, and the Territorial Sea and Fishing Zones Act. The Oceans Act consists of three parts: Part I defines Canada's maritime zones in accordance with UNCLOS. It recognizes the exercise of Canada's jurisdiction over its ocean and submarine

areas through the exclusive economic zone, the contiguous zone and the continental shelf; Part II provides that the Ministry of Fisheries and Oceans will be responsible for the development and implementation of a national strategy for oceans management based on the principles of sustainable development, integrated management of activities in estuaries, coastal and marine waters and the precautionary approach. The Act introduces the concept of specially protected marine areas which will be established on a case-by-case basis with the intent to protect and preserve endangered marine life and environment. It also contains provisions defining the powers and procedures for enforcement of the oceans management plan. Part III of the Act defines the powers and responsibilities of the Minister with respect to coast guard services, and specifies activities that may be undertaken with respect to marine science and hydrography (see Law of the Sea Bulletin No. 35, in press).

79. Spain adopted Royal Decree 1315/1997 on 1 August 1997 to provide for the establishment of a "fishing protection zone" in the Mediterranean. The zone, which is defined by geographical coordinates, runs from Cape Gata in the south of Spain up to the maritime boundary with France, based on the principle of the equidistant line with States with opposite coasts. In the zone, Spain exercises sovereign rights for the conservation, management and control of fishing activities, without prejudice to the measures adopted or to be adopted by the European Union as regards the protection and conservation of living marine resources. Uncontrolled fishing activities by non-Mediterranean industrial fleets which do not respect the recommendations of the International Commission for the Conservation of Atlantic Tuna (ICCAT) is among the reasons given in the Decree for the establishment of such a zone. In this respect, the Decree recalls that European Union conservation and control measures do not apply to non-European Union vessels beyond the territorial sea.

80. In a note verbale dated 30 June 1997, Greece responded to the notification by Turkey dated 22 February 1996 regarding the interpretative statement made by Greece at the time of both signature and ratification of UNCLOS. According to the note, the purpose of the Greek statement was to interpret certain provisions of UNCLOS "in full accordance with the spirit and the true meaning of UNCLOS". Greece stated that it did not intend to create any separate category of straits used for international navigation, and in particular pointed out that the reference to article 36 of UNCLOS "in no way can be interpreted as an intention to exercise any discretionary powers over the high seas". Greece also stated that it respects all rules and regulations established under the International Civil Aviation Organization (ICAO) framework and failed to understand how the statement could be interpreted as possible interference with ICAO international air routes, as suggested by Turkey. Greece added that the repeated references made by Turkey to the provisions of UNCLOS was an indication that Turkey accepted UNCLOS provisions as reflecting general customary law (see Law of the Sea Bulletin No. 35, in press).

B. Summary of claims to maritime zones

81. The table below presents a summary of current claims to maritime zones:

Summary of claims in maritime zones

	Outer limits	African States	Asian and Pacific States	European and North American States	Latin American and Caribbean States	World
Territorial sea	12 nm	29	43	27	24	123
	-12 nm		4	3	2	9
	+12 nm	9	1		5	15
Contiguous zone	24 nm	12	21	6	14	53
	-24 nm	2	2	2	1	7
	+24 nm		1			1
Exclusive economic zone	200 nm	23	33	12	25	93
	Up to a line of delimitation, by determination of coordinates or without limits	2	3	4		9
Fishery zone		3	3	8	1	15
Continental shelf	200 nm	3	1		2	6
	Outer edge of continental margin, or 200 nm	5	12	3	10	30
	Depth 200 metres+ Exploitability	5	6	16	6	33
	Other	1	6	4	3	14

C. Deposit of charts and lists of geographical coordinates and compliance with the obligation of due publicity

82. Under articles 16 (2), 47 (9), 75 (2) and 84 (2) of the Convention, a coastal State is to deposit with the Secretary-General its charts or lists of geographical coordinates for the drawing of straight baselines and archipelagic baselines and those showing the outer limits of the territorial sea and the exclusive economic zone. Similarly, under article 76 (9), coastal States are required to deposit with the Secretary-General charts and relevant information, including geodetic data, permanently describing the outer limits of their continental shelf. The Secretary-General is required to give due publicity to all these charts and lists of geographical coordinates.

83. In order to carry out the functions entrusted to the Secretary-General under the Convention and to respond to the request made by the General Assembly in paragraph 15 of its resolution 49/28 and paragraph 9 of its resolution 50/23, the Division for Ocean Affairs and the Law of the Sea, as the responsible substantive unit of the Secretariat, has established facilities for the custody of charts and lists of geographical coordinates to be deposited. The Division has also adopted a system for their recording and publicity in order to assist States in their obligations of giving due publicity to such charts and lists of coordinates. An internal computerized "data record" summarizes the information submitted, and to ensure due publicity, the Division informs States parties of the deposit of charts and geographical coordinates through a "Maritime Zone Notification". Such information is included in the Law of the Sea Information Circular (LOSIC). The Division is also in the process of establishing a

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Geographic Information System (GIS) using state-of-the-art technology to convert deposited information such as maps, charts and lists of coordinates into a global GIS database. As of 30 September 1997, the following States parties had deposited with the Secretary-General charts and/or lists of geographical coordinates relating to various maritime zones: Argentina, China, Costa Rica, Cyprus, Finland, Germany, Italy, Jamaica, Japan, Myanmar, Norway and Romania.

84. The Division has also sought to assist States with their other obligations in regard to due publicity as established by the Convention. These obligations concern, inter alia, navigation: all laws and regulations adopted by the coastal State relating to innocent passage through the territorial sea (article 21 (3)); all laws and regulations adopted by States bordering straits relating to transit passage through straits used for international navigation (article 42 (3)); and the designation of sea lanes and prescription of traffic separation schemes, and their substitution, in the territorial sea and straits used for international navigation (articles 22 (4) and 41 (6)), as well as the designation of sea lanes through and air routes over archipelagic waters and the prescription of traffic separation schemes, and their substitution (article 53 (7) and (10)). The obligations of due publicity regarding sea lanes and traffic separation schemes is discharged in cooperation with the International Maritime Organization (IMO).

85. As of 30 September 1997, the following States parties had submitted to the Legal Counsel copies of their laws and regulations: Argentina (regulations in straits), Australia (sea lanes and traffic separation schemes), Finland (legislation on innocent and transit passage and information on sea lanes), Germany (sea lanes and traffic separation schemes), Italy (laws and regulations relating to passage in the territorial sea and straits), Marshall Islands (air routes above archipelagic waters), Myanmar (legislation on innocent passage), Namibia (providing information that Namibia has no legislation relating to innocent passage and has not adopted any sea lane or traffic separation scheme), Oman (sea lanes and traffic separation schemes) and Pakistan (legislation relating to innocent passage). Information on these submissions is also included in Law of the Sea Information Circular (LOSIC) No. 5.

D. Access of landlocked States to and from the sea

86. Pakistan made a declaration upon ratification with respect to the interpretation of Part X of the Convention, concerning the right of access of landlocked States to and from the sea and freedom of transit. In its declaration Pakistan stated that "the Convention, while dealing with transit through the territory of the transit State, fully safeguards the sovereignty of the transit State. Consequently, in accordance with article 125, the rights and facilities of transit to the landlocked State ensure that it shall not in any way infringe upon the sovereignty and the legitimate interest of the transit State. The precise content of the freedom of transit consequently, in each case, has to be agreed upon by the transit State and the landlocked State concerned. In the absence of such an agreement concerning the terms and modalities for exercising the right of transit through the territory of the Islamic Republic of Pakistan, [transit] shall be regulated only by national laws of Pakistan".

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87. The importance of strengthening international support measures to address further the problems of the newly independent and developing landlocked States in Central Asia and their transit developing neighbours has been reflected in General Assembly resolution 51/168 of 16 December 1996. The resolution provides a basis for further continuation of efforts towards elaborating a programme for improving the efficiency of the current transit environment in those States and towards promoting more effective cooperative arrangements between landlocked States in Central Asia and their transit developing neighbours.

88. On the basis of General Assembly resolution 50/97 of 20 December 1995, a meeting of governmental experts from landlocked and transit developing countries and representatives of donor countries and financial and development institutions took place in New York from 18 to 20 June 1997. The meeting reviewed the progress in the development of transit systems in landlocked and transit developing countries and made a number of recommendations (A/52/329). The meeting concluded that, with regard to road, rail, inland waterway and air transport, most of the landlocked and transit developing countries have promoted a range of bilateral and subregional transit agreements and arrangements. It noted, however, that the monitoring and enforcement of those agreements was not always adequate. It also recommended that efforts should be made by the promoters of international conventions to shed more light on the implications of adhering to them, as well as on the benefits they would bring to the landlocked and transit developing countries. The meeting welcomed the outcome of the Ulaanbataar consultative subregional meeting of China, Mongolia and the Russian Federation, which, inter alia, called for the elaboration of a North-east Asia subregional transit agreement.

89. The international community has also been called upon by the Twelfth Ministerial Conference of the Movement of Non-Aligned Countries, held at New Delhi in April 1997, to give greater support to the landlocked developing countries to enable them to improve their transit transport facilities and to encourage their efforts to overcome difficulties which hamper transit trade.

IV. NAVIGATION

90. The generally accepted international regulations, procedures and practices for safety at sea, which are contained in a number of IMO conventions, in particular the International Convention on the Safety of Life at Sea, 1974 (SOLAS), the SOLAS Protocol of 1978, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), and the 1995 STCW Code, now constitute an enormous volume of rules, regulations, standards and practices which the flag State is required to observe in accordance with article 94 and other relevant articles of UNCLOS.[6]

91. The fact that so many different shipping companies, and often nationalities, are today involved in the operation of an individual ship spreads the responsibility for its safety very thinly. Many of the components involved in shipping - the managers, insurers, builders, classification societies, etc. - are outside the flag State's jurisdiction. The increased use of management companies and manning agencies has tended to weaken links between seafaring personnel, the shipowner and even the ship. While these developments have not

necessarily affected the efficiency of ship operations, they have tended to lead to a diminution of the authority of individual Governments, sometimes to the detriment of safety. Some less developed nations lack the trained personnel, systems and institutions required to run a shipping administration effectively.

92. The effective implementation of generally accepted international regulations, procedures and practices is of crucial importance not only for the safety of navigation, but also for the prevention and control of pollution of the marine environment. Increasing failure by flag States to effectively implement and enforce international standards has resulted in greatly strengthening the role of the port State as a "safety net" for the flag State (see paras. 149-151); has led to the establishment in 1992 of the Subcommittee on Flag State Implementation; the adoption of the International Safety Management (ISM) Code in 1994 (see paras. 144-148); and the revision of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers in 1995; and has also been a major consideration in the adoption of recent decisions enabling the introduction of mandatory ships' routeing and reporting systems, which are intended to serve the dual purpose of ensuring the safety of navigation and the protection of the marine environment.

A. Safety of ships

1. Ship construction, equipment and seaworthiness

93. The generally accepted international regulations and standards governing ship construction, equipment and seaworthiness, referred to in articles 94 and 217 of UNCLOS, are basically those contained in the SOLAS Convention. The Load Lines Convention, 1966, determines the minimum freeboard to which a ship may be loaded. The construction and equipment requirements for the safety of fishing vessels are contained in: the 1977 Torremolinos International Convention for the Safety of Fishing Vessels, as amended by the 1993 Torremolinos Protocol. In addition to these conventions, there are also numerous recommendations, guidelines and codes concerning the construction, equipment and seaworthiness of ships, which though not legally binding have been widely implemented by the Member States.

94. New developments since last year's report (see A/51/645, paras. 86 and 87) include the entry into force on 1 July 1997 of the 1995 amendments to the SOLAS Convention (in document SOLAS/CONF.3/46) aimed at enhancing the safety of ro-ro (roll-on, roll-off) passenger ships, and the adoption of two new amendments to SOLAS by the Maritime Safety Committee. The first amendment (adopted by resolution MSC.57(67) of 5 December 1996) provides, inter alia, for the mandatory application of the provisions of the International Code for Application of Fire Test Procedures (adopted by resolution MSC.61(67)) and is expected to enter into force on 1 July 1998. The second amendment (adopted by resolution MSC.65(68) of 4 June 1997) establishes, inter alia, specific requirements for passenger ships other than ro-ro passenger ships carrying 400 persons or more and is expected to enter into force on 1 July 1999.

95. A Conference of Contracting Governments to SOLAS will be convened during the twentieth session of the IMO Assembly in November 1997 to consider and adopt

a new chapter XII on the safety of bulk carriers (draft text is in SOLAS/CONF.4/3), as well as a Conference resolution amending Assembly resolution A.744(18) on Guidelines on the enhanced programme of inspection during surveys of bulk carriers and oil tankers (draft text is in SOLAS/CONF.4/4).

96. Increasing attention has been given at the regional level to safety measures for ships which are too small to be covered by the SOLAS and Load Line Conventions. A recommendation on common safety rules for small ships was adopted in July 1996 by Bangladesh, China, Indonesia, the Islamic Republic of Iran, Malaysia, the Philippines, the Republic of Korea, Singapore and Thailand at a seminar held at Tehran. The recommendation emphasizes that the adoption of common safety rules and load line regulations containing the same safety principles incorporated in the international conventions is a priority task in the promotion of common safety standards applicable to non-convention sized ships. UNCLOS in article 94, paragraph 2 (a), makes reference to the non-applicability of generally accepted international regulations on account of their small size.

97. Recent developments in respect of the safety of fishing vessels include the adoption at a Conference, in February 1997,[7] of Guidelines for the Safety of Fishing Vessels of 24 Metres and over but less than 45 Metres in Length Operating in the East and South-East Asia Region, as well as a Declaration on the Safety of Fishing Vessels (see MSC 68/INF.10). The Guidelines were adopted pursuant to article 3(5) of the Torremolinos Protocol.

2. Seafarers conditions

(a) Manning of ships and training of crew

98. The applicable international instruments governing the manning of ships and training of crew, referred to in articles 94 and 217 of the Convention, are regulation V/13 of SOLAS (see paras. 106-144), the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), and the 1995 STCW Code. The Code contains all technical regulations: part A is mandatory, while part B is recommendatory. The 1995 amendments to the STCW Convention and part A of the STCW Code entered into force on 1 February 1997. Parties to the STCW Convention will now be required to submit to IMO by 1 August 1998 information concerning administrative measures taken to ensure compliance, education and training courses, certification procedures and other factors.

99. New amendments to the STCW Convention and the STCW Code were adopted by the IMO Maritime Safety Committee (MSC) on 4 June 1997 by resolutions MSC.66(68) and MSC.67(68) respectively and are expected to enter into force on 1 January 1999. They concern mandatory minimum requirements for the training and qualifications of "masters, officers, ratings and other personnel" on both ro-ro and other passenger ships.

(b) Labour conditions

100. The applicable international instruments governing labour conditions, referred to in article 94 of the Convention, consist of the body of International Labour Organization (ILO) maritime labour standards, better known as the International Seafarers Code, which consists of 39 Conventions and 30 Recommendations, of which the Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147) is the most far-reaching and applies to the majority of the world merchant fleet.[8]

101. Three new Conventions together with their associated Recommendations and one Protocol were adopted by the eighty-fourth (Maritime) Session of the International Labour Conference (8-22 October 1996), i.e., the Labour Inspection (Seafarers) Convention, 1996 (No. 178) and Recommendation, 1996 (No. 185); the Convention concerning the Recruitment and Placement of Seafarers, 1996 (No. 179) and Recommendation, 1996 (No. 186); the Convention concerning Seafarers' Hours of Work and the Manning of Ships, 1996 (No. 180) and Recommendation, 1996 (No. 187); and the 1996 Protocol to the Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147). The new instruments were drafted so as to take due account of the marked changes in the shipping industry and maritime labour in recent years, while at the same time being responsive to UNCLOS, now in force, which as an umbrella convention is included in the preamble of all three Conventions and the Protocol.

102. The Labour Inspection (Seafarers) Convention, 1996 (No. 178) and Recommendation, 1996 (No. 185) is the first international convention on maritime labour inspection and provides for the periodic inspection, by an independent inspector of the flag State, of seafarers' working and living conditions on board in order to verify that they conform to national laws and regulations.

103. The Convention concerning the Recruitment and Placement of Seafarers, 1996 (No. 179) revises the Placing at Seamen Convention, 1920 (No. 9); and the Convention concerning Seafarers' Hours of Work and the Manning of Ships, 1996 (No. 180) revises ILO Convention No. 109 on the same subject, now establishing specific daily and weekly limitations on hours of work with the aim of preventing fatigue which is often a critical factor to ship safety, and in order to separate out the issue of wages with the hope that the new Convention will be more widely ratified. By virtue of the inclusion of the new Convention in the supplementary appendix to the 1996 Protocol to the Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147), it will, once it enters into force, enable port State enforcement in accordance with article 4, paragraph 1, of the Merchant Shipping Convention.

104. The 1996 Protocol to the Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147) is designed to broaden the scope of application of the Convention to include standards regarding accommodation of crews, hours of work and manning, seafarers' identity documents, workers' representation, health protection and repatriation.

105. Among the five resolutions adopted by the Labour Conference was resolution I concerning the application of revised Convention No. 9 to the fisheries sector, in which it recognizes that the current crisis in the fishing

industry (see paras. 191-197) has had serious repercussions on the labour and social standards of fishermen. It has resulted in the abandonment of many crew members of fishing vessels in ports worldwide without any recourse to compensation for lost earnings and assistance with repatriation, except from charitable organizations. The resolution invites the ILO Governing Body to promote the application to fishermen of the new Recruitment and Placement of Seafarers Convention, 1996, and to convene an early tripartite meeting for the fisheries sector to assess which of the other ILO maritime instruments should be applied to the fisheries sector through the adoption of appropriate protocols, and/or the adoption of new international labour standards for the sector. It may be noted that the problem of abandonment of seafarers has recently been raised in the IMO Subcommittee on Flag State Implementation.

B. Safety of navigation

106. UNCLOS establishes the legal regime governing the exercise of the freedom of navigation and regulates the exercise of the rights of innocent passage, transit passage and archipelagic sea lanes passage. In exercising these rights, ships are required to comply, *inter alia*, with the generally accepted international regulations, procedures and practices for safety at sea, including the International Regulations for Preventing Collisions at Sea.

107. Two new amendments to chapter V of SOLAS, which identifies certain navigation safety services which should be provided by the flag State and sets forth provisions governing the operation of ships, were adopted by the Maritime Safety Committee: the first amendment (resolution MSC.57(67) of 5 December 1996) concerns the deletion of regulation 15.1 and is expected to enter into force on 1 July 1998, and the second amendment (resolution MSC.65(68) of 4 June 1997) concerns the addition of a new regulation 8-2 on vessel traffic services (see paras. 126-130) and is expected to enter into force on 1 July 1999. The following amendments to chapter V entered into force this year: regulation V/8 on ships' routeing, adopted by resolution MSC.46(65) on 16 May 1995, entered into force on 1 January 1997; and amendments to regulation 10 and (distress messages), regulation 13 (manning), regulation 15 (search and rescue) and new regulation 10-1 and regulation 23 (operational limitations) adopted by resolution 1 of the Conference of Contracting Governments to SOLAS in November 1995 (SOLAS/CONF.3/46) entered into force on 1 July 1997.

108. A comprehensive revision of chapter V has been under discussion in the Subcommittee on Safety of Navigation (NAV), which hopes to complete its work at its forty-fourth session in 1998. One of the issues under review is whether the phrase "ships of war and troopships", used in the regulation, dealing with exemptions from scope of application of chapter V, should be replaced either with "ships of war" or with wording derived from the sovereign immunity provisions of UNCLOS. It was felt that "ships of war" should not be exempted from certain requirements of chapter V, e.g., the regulation on distress messages: obligations and procedures, as UNCLOS and the International Convention on Maritime Search and Rescue (SAR) do not exclude such ships from responding to distress situations (see NAV 43/WP.5, para. 5.5).

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1. Routes used for navigation

109. UNCLOS gives the coastal State the right to designate sea lanes and prescribe traffic separation schemes in its territorial sea (article 22), in straits used for international navigation (article 41) and in archipelagic waters (article 53). In designating sea lanes and prescribing traffic separation schemes in the territorial sea, the coastal State is required only to take into account the recommendations of the competent international organization, i.e., IMO, whereas under article 41, paragraph 4, and article 53, paragraph 9, a State bordering a strait and an archipelagic State may designate sea lanes and prescribe traffic separation schemes or substitute them only after they have been adopted by IMO and agreed to by the State concerned.

110. IMO is recognized as the only international body responsible for establishing and adopting measures on an international level concerning ships' routeing systems for use by all ships, certain categories of ships or ships carrying certain cargoes under SOLAS regulation V/8 as amended in 1995 (A/51/645, para. 116) and the General Provisions on Ships' Routeing (IMO Assembly resolution A.572(14) as amended in 1995 by resolution A.827(19)). Rules 1(d) and 10 of the International Regulations for Preventing Collisions at Sea (COLREG) define, respectively, the competence of IMO to adopt traffic separation schemes and the main technical regulations to be followed in this regard.

111. The Maritime Safety Committee at its sixty-seventh session in December 1996 adopted amendments to six traffic separation schemes and cancelled one (MSC 67/22, annex 9). The Committee also adopted a mandatory ships' routeing system, i.e., "Mandatory route for tankers from North Hinder to the German Bight and vice versa" (ibid., annex 11); as well as amendments to the Recommendations on navigation around the United Kingdom coast - in the Pentland Firth (ibid., annex 10).

(a) Navigation through straits

112. The proposal by Indonesia, Malaysia and Singapore for new and amended traffic separation schemes in the Straits of Malacca and Singapore, two additional deep-water routes, six precautionary areas, three inshore traffic zones and amendments to the Rules for Vessels Navigating through the Straits of Malacca and Singapore (NAV 43/3/2 and Corr. 1 and 2), was approved with modifications by the Subcommittee on Safety of Navigation for adoption at the sixty-ninth session of the Maritime Safety Committee in May 1998 (NAV 43/WP.5, paras. 3.5 and 3.11; WP.3/Add.1, annexes 1 and 4). The United States, the Russian Federation and Australia reserved their position on the establishment of the inshore traffic zones (ITZ) in the Straits, questioning the need for such extensive zones which run along the entire length of the strait and have the practical effect of closing the Malaysian side of the strait to through traffic that elects not to use the proposed voluntary routeing system. It was also pointed out that the establishment of the ITZ would, in effect, give the Government making the proposal the benefit of a mandatory routeing system without going through the IMO-established process for proposing such mandatory measures. The three States bordering the Straits pointed out that the ITZs had been developed to promote a safe and orderly flow of traffic by separating local

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from through traffic. They noted that extensive ITZs had also been established in the Dover Strait and the Strait of Gibraltar to contribute to maritime safety (see draft NAV report, NAV 43/WP.5, paras. 3.9-3.10).

113. The NAV Subcommittee also approved a two-way route and two precautionary areas in the Strait of Bonifacio as proposed by France and Italy (NAV 43/3/3). The proposal to provide for the establishment of an area to be avoided in the Strait was withdrawn by the proposing States. A number of countries had reserved their position on the matter, noting that the establishment of an area to be avoided would have the practical effect of denying transit passage through an international strait to a category of vessel which would be inconsistent with article 38 of UNCLOS, SOLAS regulation V/8(k) and paragraph 3.7 of the General Provisions on Ships' Routeing (NAV 43/WP.5, paras. 3.15-3.17; WP.3/Add.1, annex 7).

114. Pursuant to paragraph 5 of Assembly resolution A.827(19) and the decision of the Maritime Safety Committee at its sixty-seventh session, the Subcommittee reviewed the conditions in and the operation of the Rules and Recommendations on Navigation through the Strait of Istanbul, the Strait of Çanakkale and the Sea of Marmara and prepared a report thereon for submission to the twentieth session of the Assembly in November this year (A.20/9/Add.1, annex 3).

(b) Archipelagic sea lanes

115. The Maritime Safety Committee, at which the Division was represented, considered the proposal by Indonesia for the designation of archipelagic sea lanes in its archipelagic waters (MSC 67/7/2) (A/51/645, paras. 129-133). It was the first time that an archipelagic State presented such a proposal pursuant to article 53 of UNCLOS. The Committee also had before it a proposal by Australia regarding IMO procedures for the adoption of sea lanes (MSC 67/7/3).

116. In introducing the proposal, the representative of Indonesia said that his country recognized IMO as the "competent international organization" under article 53, paragraph 9, of UNCLOS. He proposed that IMO should consider the adoption of archipelagic sea lanes from the point of view of the safety of navigation and on the basis of the relevant proposals submitted and that discussion on such proposals should be limited to the Maritime Safety Committee. During the discussions that followed a number of issues were raised. On the question of procedure, it was proposed that since archipelagic sea lanes were conceptually similar to other routeing measures for which IMO had well-established procedures, the General Provisions on Ships' Routeing could form a useful starting point for the consideration of the proposal. As regards the proposal itself, a number of delegations noted that since the archipelagic sea lanes proposed by Indonesia for designation did not include all normal passage routes used as routes for international navigation as required by article 53, paragraph 4, of the Convention, the proposal for designation could only be considered a partial one, and that pending the designation of all such routes, the right of archipelagic sea lanes passage may be exercised in the routes normally used for international navigation in accordance with article 53, paragraph 12 (MSC 67/22, paras. 7.30-7.37).

117. Referring to the overflight issues mentioned in the Indonesian proposal, the representative of ICAO noted that while air routes were not specifically mentioned in article 53, paragraph 9, of UNCLOS, ICAO was, so far as air routes to be used by civil aircraft were concerned, the competent organization. In case of designation of new air routes, suitable for the right of archipelagic sea lane passage, the well-established amendment procedure applicable to ICAO Regional Air Navigation Plans should be resorted to. In accordance with article 54 and by reference to article 39, paragraph 3, of UNCLOS, the Rules of the Air established by ICAO would be applicable to archipelagic sea lanes passage (MSC 67/22, para. 7.38).

118. The Committee decided to convey the Indonesian proposal and the Australian submission of the Subcommittee on Navigation at its forty-third session and instructed the Subcommittee to: (a) review the General Provisions on Ships' Routeing (resolution A.572(14) as amended), determine whether they provided adequate guidance and criteria for the submission of proposals and the adoption of archipelagic sea lanes as "routeing measures" and recommend any appropriate amendments that might be necessary; (b) on the basis of the outcome of the Subcommittee's review of the General Provisions, consider the Indonesian proposal and make appropriate recommendations regarding the adoption of the archipelagic sea lanes proposed therein; and on the navigation of foreign vessels and overflight of aircraft outside the currently proposed sea lanes in accordance with article 53(12) and article 52(1) of UNCLOS; (c) advise the Committee on any associated rules and regulations applicable to archipelagic sea lanes as might be submitted by the archipelagic State for the Committee's consideration; and (d) advise the Assembly directly at its twentieth session of progress made in its consideration of the Indonesian proposal so that the Assembly could authorize the Maritime Safety Committee at its sixty-ninth session to adopt the proposed archipelagic sea lanes if the Assembly had not done so (MSC 67/22, para. 7.40, and annex 16).

119. The Maritime Safety Committee invited the Assembly at its twentieth session to confirm that the delegation of responsibility to the Committee for the adoption of routeing measures in accordance with Assembly resolution A.826(19) should also apply to routeing measures related to archipelagic sea lanes.

120. At the forty-third session of the Subcommittee on Safety of Navigation in July 1997, at which the Division was also represented, the Subcommittee had before it, in addition to the relevant Committee documents, five submissions: a note by Indonesia providing a list of marine aids to navigation in the archipelagic sea lanes and fishing grounds of Indonesia (NAV 43/INF.3); two papers, one from the United States (NAV 43/3/9) and the other from Australia (NAV 43/3/13), proposing amendments to the General Provisions on Ships' Routeing; and two papers, one from the United States (NAV 43/3/10) and one from Australia (NAV 43/3/14), dealing with the identification of the normal routes through the Indonesian archipelago which were not encompassed in the Indonesian proposal. The Subcommittee did not have time to consider the last two documents.

121. The Subcommittee agreed that archipelagic sea lanes should be considered a routeing system, but given their unique character they could not be treated like the existing routeing systems included in part A of the General Provisions of

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ships routeing but would rather form a new category of routeing system. The Subcommittee prepared draft General Provisions for Adoption, Designation and Substitution of Archipelagic Sea Lanes (NAV 43/WP.3/Add.2, annex 15) and agreed they would constitute a separate new part at the end of the General Provisions on Ships' Routeing.

122. The draft General Provisions for Adoption, Designation and Substitution of Archipelagic Sea Lanes provide that the legal regime for archipelagic sea lanes is contained in Part IV of UNCLOS and incorporate and refer to many of its provisions. Furthermore IMO, as the competent international organization responsible for the adoption of archipelagic sea lanes, is required to ensure that the proposed sea lane is in accordance with the relevant provisions of UNCLOS. A designated sea lane automatically includes a corresponding air route above the sea lane. The draft General Provisions provide that such air routes are independent of ICAO-approved air routes.

123. The draft General Provisions introduce the concept of a partial archipelagic sea lanes proposal, which is defined as "an archipelagic sea lanes proposal by an archipelagic State which does not meet the requirement to include all normal passage routes and navigational channels as required by UNCLOS". If IMO adopts a partial archipelagic sea lanes proposal, the archipelagic State is required to inform IMO periodically on its plans for conducting further surveys and studies that will result in the submission to IMO of proposals for adoption of all normal passage routes and navigational channels as required by UNCLOS, along with the general location of these sea lanes and the time-frame for this effort. IMO retains continuing jurisdiction (i.e., competence) over the process of adopting archipelagic sea lanes until such time that sea lanes, including all normal passage routes, have been adopted, as required by UNCLOS. Where a partial archipelagic sea lanes proposal has come into effect, the right of archipelagic sea lanes passage may continue to be exercised through all normal passage routes used as routes for international navigation or overflight in other parts of archipelagic waters in accordance with UNCLOS.

124. In addition to indicating the axis of the sea lanes on charts as required by article 53 of UNCLOS, the draft General Provisions recommend that in areas where the 10 per cent rule applies, as provided for in article 53, paragraph 5, the outer limits of the sea lane should, so far as practicable, be clearly indicated on the charts.

125. The Subcommittee on Safety of Navigation considered the proposal by Indonesia for the designation of archipelagic sea lanes (MSC 67/7/2) but was unable to complete its consideration owing to a lack of time to accomplish the task of developing an acceptable format and description of the proposed sea lanes suitable for adoption by the Maritime Safety Committee. Indonesia indicated that it would proceed with this matter and, with the assistance of some delegations, prepare a revised proposal for the sixty-ninth session of the Committee. The Subcommittee recommended to the Maritime Safety Committee to convene a working group at its sixty-ninth session to consider a revised proposal for subsequent approval and adoption by the Committee.

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2. Ship reporting

126. Ship reporting systems and reporting requirements are used to provide, gather or exchange information through radio reports. The information is used to provide data for many purposes, including search and rescue, vessel traffic services, weather forecasting and prevention of marine pollution. SOLAS regulation V/8-1 (adopted by resolution MSC.31(63) on 23 May 1994) enables States to adopt and implement mandatory ship reporting to vessel traffic services in accordance with the Guidelines and Criteria for Ship Reporting Systems (resolution MSC.43(64)) and with the General Principles for ship reporting systems and ship reporting requirements, including guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants (Assembly resolution A.648(16)). Amendments to resolution A.648(16) concerning ship reporting systems for search and rescue (MSC 67/22, annex 14) have been prepared by the Maritime Safety Committee for adoption by the IMO Assembly in November 1997.

127. A new SOLAS chapter V regulation (regulation V/8-2) on Vessel Traffic Services (VTS) was adopted at the sixty-eighth session of the Maritime Safety Committee by resolution MSC.65(68), and will enter into force on 1 July 1999 (MSC 68/23, annex 2). New regulation V/8-2 provides that the use of a VTS may only be made mandatory in sea areas within the territorial sea of a coastal State. Contracting Governments are required to endeavour to secure the participation in, and compliance with, the provisions of VTS by their ships. Nothing in the regulation or the IMO guidelines is to prejudice the rights and duties of Governments under international law or the legal regime of straits used for international navigation and archipelagic sea lanes. New Guidelines for Vessel Traffic Services and Guidelines on the Recruitment, Qualification and Training of VTS Operators will be submitted to the Assembly at its twentieth session for adoption (MSC 67/22, annex 20). Once adopted, they will replace IMO Assembly resolution A.578(14) on Guidelines for Establishing Vessel Traffic Services.

128. The Maritime Safety Committee at its sixty-seventh session adopted, by resolution MSC.63(67) (MSC 67/22, annex 13), mandatory ship reporting systems "In the Great Belt Traffic (GBT) area", "Off Finisterre" and "In the Strait of Gibraltar" (see A/51/645, para. 119).

129. At its forty-third session, the Subcommittee on Safety of Navigation recommended for adoption by the Maritime Safety Committee at its sixty-ninth session, in May 1998, two mandatory ship reporting systems, one in the Straits of Malacca and Singapore and the other in the Strait of Bonifacio (NAV 43/WP.5, paras. 3.29-3.31; WP.3/Add.1, annex 10).

130. IMO is currently considering the development of a Universal Shipborne Automatic Identification System. The carriage requirements for such a system are to become mandatory and, once implemented, the system will automatically provide the coastal State with enough information about the ship and its cargo to make it unnecessary for the master to report in by radio at all.

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3. Maritime communications

131. Article 94 of UNCLOS requires the flag State to take measures to ensure safety at sea with regard, inter alia, to the maintenance of communications. Such measures must conform to generally accepted international regulations, procedures and practices.

132. Rules on communications are contained in chapter IV of SOLAS which deals mainly with facilities intended for distress and safety purposes but does specifically provide for equipment intended for communications. The technical requirements for these purposes are defined in the Radio Regulations of the International Telecommunications Union (ITU). The amendments to chapter IV which were adopted by resolution 1 of the Conference of Contracting Governments to SOLAS on 29 November 1995 entered into force on 1 July 1997 (SOLAS/CONF.3/46).

133. Recent developments in the area of satellite communications include the entry into force on 26 June 1997 of the 1989 amendments to the Convention and Operating Agreement of the International Maritime Satellite Organization (Inmarsat) (in 1994 Inmarsat changed its name to "International Mobile Satellite Organization"), which were adopted on 19 January 1989 by the Inmarsat Assembly, as well as the ongoing discussions within the organization on proposals for amending the Convention and the Operating Agreement to permit the restructuring of Inmarsat into two separate legal entities, a limited liability company registered under national law and an intergovernmental organization (see MSC 67/21/1). IMO has expressed its concern that the restructuring process may negatively affect Inmarsat's provision of communication services to the Global Maritime Distress and Safety System (GMDSS), and has asked to be given the opportunity to consider and reflect on recommendations for restructuring before a final decision is taken on the matter by the Inmarsat Assembly (see MSC 68/23, paras. 8.19-8.24).

134. At present there are two satellite navigation systems available for civilian use (both were developed for military purposes). The first is the Global Positioning System (GPS) which is managed by the United States Air Force and became fully operational in 1994. The second is the Global Navigation Satellite System (GLONASS), which is expected to become fully operational this year and is operated by the Russian Space Agency. Both systems are expected to continue until approximately 2010. Although they offer a horizontal accuracy of 45 to 100 metres, neither is regarded as suitable for navigation in harbour entrances and approaches or in other waters in which navigation is restricted, without augmentation. Older navigation systems, such as Decca, Loran-C and Omega, are expected to be phased out in many countries by the end of the century.

135. A draft Assembly resolution on "Maritime policy for a future Global Navigation Satellite System (GNNS)" has been prepared by the Maritime Safety Committee and the Subcommittee on Safety of Navigation for adoption at the twentieth session of the IMO Assembly (see MSC 67/22, annex 15, and NAV 43/WP.2, annex 1). The draft resolution recognizes the need for a future civil and internationally controlled system which will improve, replace or supplement the present global navigation satellite systems.

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136. There are a number of maritime issues on the agenda of the ITU World Radiocommunications Conference to be held from 27 October to 21 November 1997 (see COMSAR 2/6/1). IMO has requested the Conference to consider the frequency requirements for the Universal Shipborne Automatic Identification System and to assign one VHF maritime frequency channel for worldwide use on the high seas and allow each region to select regional channels for use in that region (see NAV 43/WP.2, annex 6). The European Conference of Postal and Telecommunications Administrations is proposing that the ITU World Conference revise the article of the Radio Regulations dealing with Licensing to allow the use of ship stations and ship earth stations in waters under the jurisdiction of other countries. It is recommending that information on waters and harbours where such use of radio stations on board foreign vessels for special reasons is not permitted or restricted be indicated in relevant maritime publications (see COMSAR 2/6/7, para. 3.7).

4. Marine casualties

137. Article 94, paragraph 7, of UNCLOS requires each State to cause an inquiry to be held by or before a qualified person or persons into every maritime casualty or incident of navigation in the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the marine environment.

138. The draft IMO Assembly resolution on the Code for the Investigation of Marine Casualties and Incidents, which will be submitted to the Assembly at its twentieth session for adoption (MSC 68/23, para. 7.22 and annex 8), together with the draft Code, not only refers to the obligation of the flag State under article 94, paragraph 7, of UNCLOS, it also recognizes that where a casualty occurs within the territorial sea or internal waters of a State, that State has a right, under article 2 of UNCLOS, to investigate the cause of any such casualty which might pose a risk to life or the environment, involve the coastal State's search and rescue authorities, or otherwise affect the coastal State.

139. The draft Code applies, as far as national laws allow, to the investigation of marine casualties or incidents where either one or more interested States have a substantial interest in a marine casualty involving a vessel under their jurisdiction. The aim of the Code is to promote a common approach to the safety investigation of marine casualties and incidents, and also to promote cooperation between States in identifying the contributing factors leading to marine casualties. By fully participating in an investigation conducted by another substantially interested State, the flag State shall be considered to fulfil its obligations under article 94, paragraph 7, of the Convention.

140. The draft Code, which contains a very broad definition of "substantially interested States", recommends that those States should, by mutual agreement, be allowed to join an investigation conducted by another substantially interested State at any stage of the investigation. A final report of the investigation should be sent to IMO.

141. It may be noted that article 217, paragraph 7, of the Convention requires the flag State to promptly inform the State requesting the investigation of a violation of applicable international rules and standards regarding the prevention, reduction and control of marine pollution from ships, of the outcome of enforcement actions taken in respect of ships flying its flag. The competent organization, i.e., IMO, must also be informed and the information made available to all States.

5. Assistance at sea

142. Article 98 of UNCLOS on the duty to render assistance obliges every State to require the master of a ship flying its flag, insofar as he can do so without serious danger to the ship, the crew or the passengers, to render assistance to any person found at sea in danger of being lost; to rescue persons in distress; and after a collision, to render assistance to the ship, its crew and its passengers. Every coastal State is required to promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, cooperate with neighbouring States for this purpose by way of mutual regional arrangements.

143. In addition to the requirements under SOLAS chapter V and also the 1989 International Convention on Salvage, States parties to the 1979 International Convention on Maritime Search and Rescue (SAR) are required to ensure that arrangements are made for the provision of adequate search and rescue services in their coastal waters. The SAR Convention recommends that parties coordinate search and rescue operations with those of neighbouring States. Unless otherwise agreed between the States concerned, it is recommended that a party should, subject to applicable national legislation, give authorization for the immediate entry into, or over its territorial sea or territory, of rescue units of other parties solely for the purpose of searching for the position of maritime casualties and rescuing the survivors of such casualties. The establishment of a global plan for maritime search and rescue is the ultimate objective of the Convention. Following the entry into force of the 1979 Convention in 1985, the world's seas were divided into 13 SAR areas.

144. A review of the 1979 Convention aimed at updating its provisions and facilitating its wider acceptance by Governments (56 States have ratified it, representing 49.11 per cent of world tonnage) has been finalized and amendments to the Convention were approved at the sixty-eighth session of the Maritime Safety Committee for adoption at the Committee's sixty-ninth session in 1998 (MSC 68/23, para. 8.32, and annex 12). Once the Convention was adopted, parties would be required, individually or in cooperation with other States, to ensure that sufficient search and rescue regions were established within each sea area. Each search and rescue region must be established by agreement, or, if the exact dimensions of the region cannot be agreed upon, by arrangement. Agreement on the regions must be recorded by the parties concerned, or arrangements in written plans accepted by the parties. The delimitation of search and rescue regions is not related to and must not prejudice the delimitation of any boundary between States.

C. Flag State implementation

145. Steady progress has been made by Governments in ratifying all of the IMO Conventions; only 8 out of 39 are not yet in force, with the maritime safety-related Conventions enjoying the highest numbers of ratifications. However, some flag States have been unable, or in some cases unwilling, to implement the provisions of these Conventions as rigorously as is necessary to achieve the level envisaged in the Conventions. The Subcommittee on Flag State Implementation has been addressing this problem (A/51/645, paras. 96-99).[9]

146. At its sixty-eighth session, the Maritime Safety Committee approved with modifications (see MSC 68/7/4 and MSC 68/23, paras. 7.4-7.6) the text of a draft Assembly resolution on Guidelines to assist flag States in the implementation of IMO instruments, prepared by the Subcommittee, for adoption at the twentieth session of the Assembly (MSC 68/23, annex 7). The Guidelines are intended to provide flag States with a means to establish and maintain measures for the effective application and enforcement of SOLAS, MARPOL 73/78, and the Load Line and STCW Conventions. The Guidelines provide that, consistent with article 94 of UNCLOS and the relevant IMO Conventions, the Government of a State which has become a party to a convention must have the governmental capacity to enact laws applicable to ships flying its flag and must provide for their subsequent enforcement. It is recommended that, in accordance with article 94 and the relevant IMO Conventions, flag States take all necessary measures to secure observance of international rules and standards by vessels flying their flag so as to ensure compliance with their international obligations. These obligations are, inter alia: (a) prohibiting vessels flying their flag from sailing until they can proceed to sea in compliance with the requirements of international rules and standards; (b) periodic inspection of the vessels; (c) instituting proceedings against vessels flying their flag which have violated international rules and standards, irrespective of where the violation has occurred; and (d) providing, in national laws and regulations, penalties of adequate severity to discourage violation of international rules and standards. The Guidelines also recommend that, consistent with article 94, paragraph 6, and article 217, paragraphs 4 to 6, of UNCLOS and the relevant IMO Conventions, investigations should be carried out following a marine casualty or pollution incident. Ship casualties should be investigated and reported upon in accordance with UNCLOS, the relevant IMO Conventions and the Code for the Investigation of Marine Casualties and Incidents.

147. The Maritime Safety Committee also approved for consideration and adoption at the twentieth session of the Assembly a draft resolution on implementation of the International Safety Management (ISM) Code (see MSC 68/23, annex 6). The Code will become mandatory on 1 July 1998 by virtue of the entry into force of SOLAS chapter IX. The draft resolution recalls Assembly resolution A.788(19) (A/51/645, para. 95), whereby Governments should have requested organizations capable of performing statutory work on their behalf in terms of certification and survey functions to apply for certification under the ISM Code not later than 1 July 1997. According to statistics issued earlier this year by the International Classification Societies, only 8.25 per cent of the world fleet has complied with the ISM Code (extract from IMO document on "World Maritime Day 1997").

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148. In the draft resolution, it is noted with concern that still only a small insufficient percentage of shipping companies and ships have apparently either applied for or obtained the certification required by the Code, and that some Governments have apparently not yet enacted the required domestic legislation to give effect to the requirements of the Code. All parties concerned are urged to recognize that non-compliance with the ISM Code may be regarded as increasing the risk of marine pollution, which may lead to a violation of the pollution prevention requirements, and that article 217 of UNCLOS provides that penalties provided by the laws and regulations to prevent, reduce and control pollution of the marine environment of States for ships flying their flag shall be adequate in severity to discourage violations wherever they occur.

149. It was noted in the Maritime Safety Committee that a number of flag States are removing vessels flying their flag which do not comply with international minimum requirements from their register and that this can have severe implications for the seafarers on board, who can find themselves abandoned in a foreign port. It was suggested that a regime of compulsory insurance should include, inter alia, claims of seafarers for unpaid wages, maintenance and repatriation where a vessel has been abandoned (note by the International Confederation of Free Trade Unions, MSC 68/7/2; see also LEG 75/4/4). Some delegations did not support the proposal (MSC 68/7/4) to request the Subcommittee on Flag State Implementation to deal with issues relating to a flag State deleting ships from its register, but instead agreed that the Subcommittee should consider the implications that arise when a vessel loses the right to fly the flag of a State from the point of view of both the flag State and the port State (MSC 68/23, para. 7.7).

D. Port State control

150. The Maritime Safety Committee at its sixty-eighth session agreed that port States may authorize relevant regional port State control organizations to provide IMO with pertinent information on deficiency reports on their behalf and that complaints from flag States concerning the accuracy of the information should be raised with the relevant port State concerned (MSC 68/23, para. 7.12). The Committee also discussed a proposal (MSC 68/7/5) to develop a flag State mandatory reporting procedure on port State control detentions for serious structural deteriorations or deficiencies and decided to include in the work programme of the Subcommittee on Flag State Implementation a new high-priority item on mandatory reporting procedure on port State control detentions, with a target completion date of 1999 (MSC 68/23, para. 20.31).

151. During the discussions on the draft Assembly resolution on implementation of the International Safety Management (ISM) Code, the delegation of the Netherlands informed the Committee that, in line with discussions in the Executive Committee of the Paris Memorandum of Understanding on Port State Control, it was currently preparing a campaign focusing on inspection of ISM Code matters, which was scheduled to commence on 1 July 1997. Ships which had not started their ISM Code certification process would, in the first place, be issued with a Letter of Warning. After 1 July 1998, such ships would be detained for reasons of non-conformity with the ISM Code. Such detention could be lifted if no other deficiencies were found, but the ships concerned would be

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refused entry into any Netherlands port thereafter until they complied with the requirements of the Code. The delegation of the United States informed the Committee that it was planning similar actions (MSC 68/23, para. 7.3).

152. According to recent news reports, the European Union has warned that any ship failing to comply with the ISM Code will be banned from Union ports (Journal of Commerce, 29 May 1997). A representative of the United States Coast Guard recently stated that "Ships heading for United States waters will be required to apprise the United States Coast Guard at least 24 hours before arrival whether the vessel has valid ISM certificates, who issued them and when. If the ship lacks certification, it will be forbidden entry" (Business Times, 19 August 1997).

E. Maritime transport

1. Carriage of cargoes

153. SOLAS chapter VI deals with the carriage of all types of cargo except liquids and gases in bulk. Recent developments include the entry into force on 1 July 1997 of the 1995 amendments to chapter VI which were adopted by resolution 1 of the Conference of Contracting Governments to SOLAS on 29 November 1995 (see SOLAS/CONF.3/46).

2. Carriage of dangerous goods

154. The carriage of dangerous goods is dealt with in SOLAS chapter VII and in several IMO codes, namely, the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), the International Code for the Construction and Equipment of Ships Carrying Liquified Gases in Bulk (IGC Code), the International Maritime Dangerous Goods Code (IMDG Code) and the Code for the Safe Carriage of Irradiated Nuclear Fuel, Plutonium and High-level Radioactive Waste in Flasks on Board Ships (INF Code). SOLAS chapter VII provides for the mandatory application of the IBC and IGC codes. The IBC Code is also mandatory under MARPOL 73/78.

155. The Maritime Safety Committee on 5 December 1996, adopted amendments to SOLAS chapter VII (by resolution MSC.57(67)), the IBC Code (by resolution MSC.58(67)) and the IGC Code (by resolution MSC.59(67)). All three amendments are expected to enter into force on 1 July 1998. Corresponding amendments to the IBC Code were adopted by the Marine Environment Protection Committee (by resolution MEPC.73(39) on 10 March 1997) and are expected to enter into force on 10 July 1998. With regard to the INF Code, discussions continue both within IMO and the International Atomic Energy Agency (IAEA).

(a) Developments regarding the INF Code at the global level

Developments at IMO

156. The progress report to the twentieth IMO Assembly on action taken by the various technical bodies of IMO since the nineteenth Assembly in their review of

the INF Code was expected to be finalized at the fortieth session of the Marine Environment Protection Committee in September 1997 (the draft progress report is in MEPC 40/15 and MEPC 40/15/5). Developments at IMO since last year's report (A/51/645, paras. 220-228) include the preparation by the Marine Environment Protection Committee, at its thirty-ninth session, of a draft Assembly resolution on amendments to the INF Code requiring shipboard plans and notification of an incident, and on the adoption of Guidelines for Developing Shipboard Emergency Plans for Ships Carrying Materials Subject to the INF Code, for further consideration and final approval at its fortieth session (see MEPC 39/13, annex 4); the decision by the Maritime Safety Committee to make the INF Code, and, once they are adopted, the draft amendments prepared by the Marine Environment Protection Committee, mandatory by amending SOLAS chapter VII (MSC 68/23, para. 15.14); the decision by the Legal Committee at its seventy-fifth session regarding the issue of liability; and the preparation by the Subcommittee on Safety of Navigation of a draft Assembly resolution and preliminary guidelines for voyage planning (applicable to all ships) for further consideration at the next session of the Subcommittee in 1998 (NAV 43/WP.5, paras. 4.4-4.5, and WP.3/Add.1, annex 13). The Subcommittee agreed that, if appropriate, a reference to the resolution adopting the guidelines could be made in the INF Code.

157. Views remained divided in the Legal Committee (LEG 74/13, paras. 97-102), and in the Subcommittee on Safety of Navigation on the issue of prior notification and consultation. Those that support it maintained that the coastal State should be informed of the planned passage of INF ships in order to enable it to advise on routes, make preparations for emergency response and give public information. They also noted that the provisions of UNCLOS relating to innocent passage and freedom of navigation were balanced by duties to safeguard the marine environment and not to endanger other users of the marine environment. Those who opposed the concept of prior notification and consultation contended that it might lead coastal States to try to veto or prevent the passage of ships carrying INF materials through their territorial sea or exclusive economic zone. They also contended that it could establish a precedent so that prior notification could be required for the passage of all classes of ships. Some delegations noted that if a requirement for such notification was imposed, it should be for all ships carrying hazardous or polluting cargoes, not just INF materials (NAV 43/WP.5, paras. 4.6-4.9).

158. The Legal Committee encouraged delegations to enter into informal discussions on the subject and the Subcommittee on Safety of Navigation requested delegations supporting the concept of prior notification to submit concrete proposals to its next session (see MEPC 40/15/5). Proposals concerning prior notification and the definition of the "concerned coastal State" have been submitted to the Marine Environment Protection Committee at its fortieth session (MEPC 40/15/1 and MEPC 40/15/4). A proposal concerning the definition of the "concerned coastal State" was also submitted to the Legal Committee at its seventy-sixth session (LEG 76/6/1).

Developments at IAEA

159. IAEA and IMO are coordinating their activities on the issue of emergency response arrangements. The draft revision of the IAEA Safety Series Guide on

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Emergency Response Planning and Preparedness for Transport Accidents involving Radioactive Material has been submitted to the fortieth session of the IMO Marine Environment Protection Committee for comments,[10] and IAEA will be considering the IMO draft Guidelines, (see para. 156) to ensure consistency between the two documents (MEPC 40/15, para. 2(b)(vi)4).

160. In September 1996, the IAEA Board of Governors approved a comprehensive revision of the Regulations for the Safe Transport of Radioactive Material, which has subsequently been published as part of the IAEA Safety Standard Series, No. ST-1. In November 1996, IAEA convened an advisory group meeting to specifically consider mode-related issues in the safe transport of radioactive material. The Working Group on the Sea Mode observed that available reliable technical data indicated that radioactive materials were transported safely, especially when considered in conjunction with the INF Code. It also noted that IAEA's ongoing Coordinated Research Programme on Accident Severities during the Sea Transport of Radioactive Material was collecting and analysing data that would provide additional input for evaluating maritime accident forces and their possible effects on transport packages.

161. IAEA, IMO and UNEP are working together to perform a desk study of available technical information on the potential consequences of maritime accidents.

Developments at the United Nations

162. The General Assembly, in the programme for the further implementation of Agenda 21, which it adopted at its nineteenth special session in June 1997 (see paras. 185-190) recommended that transportation of irradiated nuclear fuel (INF) and high-level waste by sea should be guided by the INF Code, which should be considered for development into a mandatory instrument. The Assembly also recommended that the issue of potential transboundary environmental effects of activities related to the management of radioactive wastes and the question of prior notification, relevant information and consultation with States that could potentially be affected by such effects, should be further addressed within the appropriate forums (A/S-19/29, annex, para. 60).

(b) Developments regarding the INF Code at the regional level

163. The South Pacific Forum at its meeting in September reiterated its expectation that shipments of plutonium and radioactive wastes should be carried out in a manner that addressed all possible contingencies and the concerns of relevant countries in the region. It stipulated that shipments would only be made if the cargo was of demonstrably minimal risk; it expected ships to be of the highest standard. Shipping States agreed to promote the safety of the material and provide compensation for any industries harmed as a result of changes in the market value of the region's fisheries and tourism products in the event of an accident. In this regard, the Forum noted the efforts of Japan, France and the United Kingdom in providing information about the recent shipment of high-level wastes. It also noted the adoption of the Convention on Supplementary Compensation for Nuclear Damage, and in particular its provisions for a dedicated transboundary fund for the victims of transboundary damage and giving coastal States jurisdiction over actions concerning nuclear damage in

their exclusive economic zone. The Forum endorsed the general approach that the region's focus in the preparatory commissions leading up to the nuclear non-proliferation Review Conference in the year 2000 would, inter alia, be on the transport of radioactive materials through the region.[11]

164. The draft Joint Oslo and Paris (OSPAR) Commission objective with regard to radioactive substances, which were under discussion at the joint meeting of the Oslo and Paris Commissions in September, with a view to its adoption at the Ministerial Conference of the OSPAR Commission in Lisbon in 1998 (at Ocean Expo 98), states that the objective of the Commission is (a) to ensure that the maritime area is effectively protected from harmful effects of ionizing radiation; (b) to ensure the prevention of pollution of the maritime area as a result of the anthropogenic discharges and emissions of radioactive substances (including wastes); and (c) to "continuously reduce discharges, emissions and losses of radioactive substances, with the ultimate aim of [concentrations] [radiation [levels] [exposure]] in the environment near background values]".[12]

F. Maritime claims

Arrest of ships

165. The joint United Nations Conference on Trade and Development (UNCTAD)/IMO Intergovernmental Group of Experts on Maritime Liens and Mortgages and Related Subjects (JIGE) has been reviewing the provisions of the 1952 International Convention for the Unification of Certain Rules Relating to the Arrest of Seagoing Ships. The objectives of the Group's work was to produce a legal framework which would protect the interests of owner of cargo and ship by securing the free movement of vessels and by prohibiting arrest for unjustifiable claims and claims not related to the operation of vessels (see the report of JIGE on its ninth session (JIGE(IX)/4, para. 3). The review of the 1952 Convention was also to harmonize provisions of the Arrest Convention with the 1993 International Convention on Maritime Liens and Mortgages and to ensure that all maritime liens recognized by the 1993 Convention were covered by the new draft Arrest Convention. The work on that draft Convention was completed by the Group at its ninth session in December 1996, and the Group recommended to the IMO Council and to the Trade and Development Board of UNCTAD that the United Nations General Assembly be requested to convene a diplomatic conference to consider and adopt a convention on certain rules relating to the arrest of seagoing ships on the basis of the draft articles prepared by the Group. The Legal Committee of IMO at its seventy-fifth session endorsed the recommendation (LEG/75/11, para. 111).

G. Liability and compensation for damage

166. Article 235, paragraph 3, of UNCLOS calls on States to cooperate in the further development of international law relating to responsibility and liability for the assessment of and compensation for environmental damage, including the development of criteria and procedures for payment of compensation, and the settlement of related disputes.

167. The need for revision of existing regimes on liability and compensation in the marine sector, as well as for the drafting of new legal instruments, has been recognized in a number of important forums. For example, the programme for the further implementation of Agenda 21 (A/S-19/29, annex) identified the urgent need for all Governments to strengthen the implementation of existing international and regional agreements on marine pollution, in particular to improve contingency planning, response, and liability and compensation mechanisms. It also urged "that work under the Basel Convention be completed to define which hazardous wastes are controlled under the Convention and to negotiate, adopt and implement a protocol of liability and compensation for damage resulting from transboundary movements and disposal of hazardous wastes" (ibid. para. 58).

1. Draft Protocol to the Basel Convention

168. At its fifth session, held at Geneva in May 1997, the Ad Hoc Working Group of Legal and Technical Experts, a subsidiary body of the Conference of Parties of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, made substantial progress in drafting a Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal. The previous draft was streamlined, and all articles of the draft Protocol reconsidered.

169. The debate primarily focused on whether those in operational control, or the exporter of the wastes, should be held liable for damages under the Protocol. It will be up to the fourth meeting of the Conference of Parties (October 1997) to decide on which party liability will fall. An article on State responsibility, as well as a number of definitions, including that of "damage", have already been agreed upon in the Ad Hoc Working Group.

170. The Conference also has on its agenda consideration of the establishment of an international Fund for immediate response measures in an emergency situation and for compensation for damage when the civil liability regime is unavailable or inadequate. Opinions of delegations appear to be divided between those who feel there are too many uncertainties about its structure, management, modalities and operation and those who consider the Fund a crucial element in the successful implementation of any liability Protocol to the Convention.

2. Civil liability for nuclear damage (IAEA)

171. A Diplomatic Conference on Liability for Nuclear Damage was held at Vienna from 6 to 12 September 1997, and on the basis of the draft texts prepared by the Standing Committee on Civil Liability for Nuclear Damage, the Conference adopted the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (IAEA/GOV/INF/822-GC(41)/INF/13, annex I, 19 September 1997) and the Convention on Supplementary Funding (ibid., annex II). The Protocol and the Convention were adopted on 12 September and opened for signature from 29 September 1997.

172. As stated in its preamble, the aim of the Protocol in amending the 1963 Vienna Convention is "to provide for broader scope, increased amount of liability of the operator of a nuclear installation and enhanced means for securing adequate and equitable compensation". The most significant changes to the Convention, contained in the Protocol, are a new definition of "nuclear damage" and related provisions which includes losses and costs related to environmental damage and to preventive measures to avoid or minimize damage after a nuclear incident has occurred; the extension of the time limit to bring an action for compensation to 30 years for loss of life and personal injury; and extension of the geographical scope of the Vienna Convention to include nuclear damage wherever suffered. The Protocol also provides for jurisdiction of coastal States over actions related to nuclear damage during transport which occurs within their exclusive economic zones or within the area coastal States may legally declare as their exclusive economic zones.

173. The Protocol sets the limit of the operator's liability at not less than 300 million Special Drawing Rights (SDRs) (approximately US$ 400 million), or, not less than 150 million SDRs provided that, in excess of that amount, and up to at least 300 million SDRs public funds are made available by the installation State to compensate nuclear damage.

174. When such public funds (known as the national compensation amount) are exhausted, the Convention on Supplementary Funding would be applicable and compensation would be provided from a fund contributed to by States parties to the Convention (IMO/LEG 75/11, para. 103) on the basis of installed nuclear capacity and the United Nations rate of assessment. The threshold to bring the supplementary fund into operation is a required national compensation amount of 300 million SDRs and a phasing-in period of up to 10 years for the national compensation amount is provided for.

175. Provisions of the Supplementary Convention follow the same approach as those regarding compensation for domestic and transboundary damage; however, for a State to adhere to the Convention, it is not necessary for it to be a party to any existing nuclear liability convention or to have nuclear installations on its territory (IAEA PR 97/21).

3. Carriage by sea of irradiated nuclear fuel (IMO)

176. The IMO Legal Committee, at its seventy-fifth session in April 1997, also dealt with the issue of liability for the transport by sea of irradiated nuclear fuel. Some delegations felt that any consideration of the liability regime applicable to this activity should take place only after the outcome of the Diplomatic Conference on Civil Liability for Nuclear Damage. Others noted that, in accordance with the terms of the resolution on liability and compensation for damage occurring during the transport of radioactive materials adopted at the 1996 Conference on Hazardous and Noxious Substances and Limitation of Liability, IMO should be competent to consider the question of liability for damage caused in connection with the transport by sea of radioactive material. The matter was placed on the agenda of the Committee for the next session, and IAEA was invited to present a report on the outcome of the Diplomatic Conference to take place in September. (IMO/LEG 75/11, paras. 102-108; MEPC 40/5, paras. 4.1-4.5)

4. Ships' bunkers

177. As mentioned in last year's report (A/51/645, para. 219), the 1992 Protocols to the International Convention on Civil Liability for Oil Pollution Damage (CLC Convention) and the 1971 International Convention on the Establishment of the International Fund for Compensation for Oil Pollution Damage (FUND) cover, inter alia, pollution damage caused by the bunkers of oil tankers, whether laden or unladen; however, pollution caused by the bunkers of other types of ships is not covered, and the victims of such pollution cannot benefit from the protection of strict shipowner liability and compulsory insurance. At its seventy-fifth session in April 1997, the IMO Legal Committee gave this matter high priority (LEG 75/11, paras. 41-62). Discussion centred on a proposal by the delegations of Australia, Canada, Finland, Norway, South Africa, Sweden and the United Kingdom favouring the development of an international regime for liability and compensation for damage caused by oil from ships' bunkers to ensure adequate coverage of clean-up and loss claims in the event of major bunker spills (LEG 75/5/1). It was pointed out that bunker oil was now the only major potential source of marine pollution not covered by a compensation regime, and that many general cargo ships carried more oil as bunkers (10,000 tonnes or more) than tankers carried as cargo.

178. Some delegations felt that a compelling need for an international regime had been established in view of experiences cited to illustrate the costs of bunker spill clean-ups; from an environmental protection point of view that need had been acknowledged unanimously in the Marine Environment Protection Committee. Other delegations felt that the need for an international regime had not been demonstrated and indicated that the problems encountered by the claimants would not be solved by an international regime of strict liability and compulsory insurance.

179. The Committee decided to keep the question under review and placed it on its 1998-1999 work programme. Meanwhile, preliminary deliberations were held on specific elements of such a regime, namely the form of the instrument, the basis of liability, channelling of liability, types of risks, financial security, jurisdiction, period of coverage and scope of application.

V. DEVELOPMENT OF MARINE RESOURCES AND PROTECTION OF THE MARINE ENVIRONMENT

180. The state of the global environment has continued to deteriorate, according to UNEP's report on the Global Environment Outlook[13]. Significant environmental problems remain deeply embedded in the socio-economic fabric of countries in all regions. One third of the world's coastal regions are at high risk of degradation, particularly from land-based activities. Rapid, unplanned urbanization, particularly in coastal areas, is placing major stress upon adjacent ecosystems. The use of renewable resources - land, forest, fresh water, coastal areas, fisheries and urban air - is beyond their natural regeneration capacity and is therefore unsustainable. In the future, the continued degradation of natural resources, shortcomings in environmental responses and renewable resource constraints may increasingly lead to food insecurity and conflict situations (see sect. VII).

181. The Agenda for Development and the programme for the further implementation of Agenda 21, which were both adopted by the General Assembly, underscore that economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development.

182. UNCLOS as a whole has struck an important balance between the use of the ocean and its resources and the protection of the marine environment. It provides for the equitable and efficient use of resources, the conservation of living resources and the protection of the marine environment. It also devotes one whole part, Part XII, to the protection and preservation of the marine environment, and contains many other articles in other parts which are relevant to the subject. Its provisions are further developed by a number of international legal instruments which contribute, directly or indirectly, to the protection of the marine and coastal environment.[14] The effective implementation of the Convention in these areas is in fact equally dependent on the effective implementation of these conventions as well as on the consistent and uniform application of the provisions of the Convention by parties to those conventions.

183. A comprehensive and coordinated approach at the global level needs to be complemented by comprehensive and integrated strategies at the regional and national levels. Regional goals which concentrate on key stresses can encourage harmonized rules and standards at the regional level for individual sources of stress and facilitate regional trade agreements and related growth and prosperity. Some regions are beginning to move away from a sector-by-sector approach to managing marine resources towards a more comprehensive and integrated strategy, e.g., the Economic Commission for Latin America and the Caribbean (ECLAC) is assisting countries in the adoption of comprehensive approaches to ocean affairs which will foster the implementation of various conventions and the need to integrate coastal and marine ecosystems concerns in national efforts; the North Sea States earlier this year convened an Intermediate Ministerial Meeting on the Integration of Fisheries and Environmental Issues; and in the Mediterranean, biodiversity considerations have been incorporated as a protocol to the framework convention addressing specific sources of pollution through other protocols (see paras. 334-335).

184. An integrated policy and decision-making process at the national level is very important to achieve a balance of uses of the marine and coastal area. Integrated coastal area management is one of the major tools for developing coordinated and integrated national strategies which take into account ongoing interactions among sectors and relationships to global and regional instruments.

A. Review of the implementation of chapter 17 of Agenda 21

185. In the programme for the further implementation of Agenda 21 (A/S-19/29, annex), which represents the outcome of the overall review and appraisal of the implementation of Agenda 21, the General Assembly in section II of the programme (ibid., para. 13), highlighted the achievements since the United Nations Conference on Environment and Development. They include the conclusion of an agreement on straddling fish stocks and highly migratory fish stocks; the elaboration of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities; and the entry into force of UNCLOS.

186. These achievements should be viewed together with the entry into force of the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, as well as the adoption of the Programme of Action for the Sustainable Development of Small Island Developing States (for list of all relevant instruments, see A/51/645, para. 193).

187. However, in spite of the progress achieved in the negotiation of agreements and voluntary instruments for improving the conservation and management of fishery resources and for the protection of the marine environment, the decline of many fish stocks, the high levels of discards and rising marine pollution are continuing. The General Assembly at its nineteenth special session identified these and other related issues, described in chapter 17 of Agenda 21, as requiring urgent action and its recommendations are included in subsection B "Sectors and issues" (A/S-19/29, annex, para. 36), under the heading of "oceans and seas" of section III of the programme entitled "Implementation in areas requiring urgent action".

188. In the section relating to "oceans and seas", as a general recommendation, the General Assembly identified the need to continue to improve decision-making on the marine environment at the national, regional and global levels which can be addressed, inter alia, by calling for a periodic intergovernmental review by the Commission on Sustainable Development of all aspects of the marine environment and its related issues, as described in chapter 17 of Agenda 21, and for which the overall legal framework is provided by UNCLOS and other international legal instruments. In this connection, seven recommendations were adopted which require urgently needed actions. Half of those recommendations deal specifically with fisheries, focusing on the necessity to combat the degradation of stocks.

189. On other issues, the General Assembly identified an urgent need for: (a) all Governments to ratify or accede to the relevant instruments as soon as possible and to implement effectively such agreements as well as relevant voluntary instruments; (b) all Governments to implement General Assembly resolution 51/189 of 16 December 1996 (dealing with land-based activities), including the strengthening of institutional links to be established between the relevant intergovernmental mechanisms involved in the development and implementation of integrated coastal zone management; (c) strengthening the implementation of existing international and regional agreements on marine pollution to ensure better contingency planning, response, and liability and compensation mechanisms; (d) better identification of priorities for action at the global level; (e) Governments to prevent or eliminate overfishing and excess fishing capacity; (f) Governments to consider the positive and negative impacts of subsidies and appropriate action; and (g) further international cooperation to support the strengthening of regional and subregional agreements for the protection and sustainable use of the oceans and seas. The Assembly also recommended that Governments should take full advantage of the challenge and opportunity presented by the International Year of the Ocean in 1998.

190. Other recommendations that the General Assembly made in respect of areas requiring urgent action in other sectors and issues described under section III of the programme which must also be taken into account in the implementation of chapter 17 include those dealing with small island developing States, fresh

water, the atmosphere, biodiversity, sustainable tourism, persistent organic pollutants and hazardous and radioactive wastes. Other recommendations were those dealing with the integration of economic, social and environmental objectives (subsection A) and means of implementation (subsection C). Attention is also drawn to the recommendations of the Assembly on international institutional arrangements (section IV of the programme), where it identified the need for better policy coordination at the intergovernmental level, as well as for continued and more concerted efforts to enhance collaboration among the secretariats of those decision-making bodies (see paras. 379-388).

B. Conservation and management of living marine resources

1. World review of fisheries

191. One of the main problems of the world's fisheries today consists of overfishing in a large part of the world's oceans and seas, caused by overcapacity in the fishing industry. It is generally agreed that there is an overcapacity when the capacity of fishing fleets exceeds the amount of resources available for harvest. Although localized overfishing has been noted in the past and has resulted in commercial extinction for particular fisheries, overfishing has now become prevalent in most fishing areas and has affected capture fisheries in developing as well as developed countries. A study by FAO has pointed out that more than two thirds of the world's marine fish stocks were being fished at or beyond their level of maximum productivity (A/50/713, paras. 166-167). A global review of data from 1991 to 1997 on large-scale industrial fishing fleets has shown that, with the exception of the years 1995 and 1996, the numbers and tonnage of new vessel construction have continued to rise and that overall the fleet size has continued to grow. Unless effective action is taken at the international and national levels, overfishing may become so severe that it might well threaten the long-term sustainability of living marine resources on a global basis. In addition, it is believed that a number of factors have also contributed to the decline in world fisheries, including the open access regime of high seas fisheries, subsidies to the fishing industry, environmental degradation of coastal areas, discarding of non-target species and undersized fish of target species, the lack of selectivity of fishing practices and fishing gear, which has allowed a high level of incidental catch of juvenile fish or other fish without commercial value, as well as considerable numbers of invertebrates, marine mammals and marine birds.

192. In view of this situation, the FAO Committee on Fisheries, which held its twenty-second session in Rome from 17 to 20 March 1997, decided that special attention should be paid in the future to excess fishing capacity and fishing effort leading to overfishing, including such practices as the use of direct and indirect subsidies to fisheries. For this purpose, it agreed to organize in 1998 a Technical Consultation on Management of Fishing Capacity, with a view to drafting guidelines for the control and management of fishing capacities. In recognition of the importance of strengthening fisheries management to achieve sustainable development, it also agreed to hold technical consultations on sustainability indicators related to fisheries.[15]

193. With regard to the issues of by-catch and discards, the Committee agreed to organize two meetings of experts to develop guidelines for reducing the incidental catch of both seabirds and sharks. The recommendations of the meetings would be considered at the next session of the Committee. However, in spite of concerns over the issue of incidental catches, there was strong opposition concerning the proposed "eco-labelling" suggested by some non-governmental organizations (NGOs) as a means of promoting market-led economic incentives for sustainable fishing through the certification of fisheries according to a set of principles and standards that would allow consumers to select fishery products coming from sustainable sources.

194. In addition to the above, the Committee stressed, inter alia, the need to pursue implementation and wide dissemination of the Code of Conduct for Responsible Fisheries for the sustainable management and development of fisheries, as well as the importance for States of ratifying or acceding to the 1995 Fish Stocks Agreement and the Compliance Agreement. Those two instruments contained key elements pertaining to the sustainability of fisheries. They were also a strong endorsement for an effective organization of regional fishery bodies to manage fish stocks within the framework of the Code, as well as the reaffirmation of the mandates of FAO and regional fishery bodies to collect data, formulate research needs and recommend management options.

195. The General Assembly at its nineteenth special session in June 1997, in reviewing the progress in the implementation of Agenda 21, stated that although progress had been achieved in the conservation and management of specific fishery stocks, the decline of many fish stocks, the high levels of discards and the increase of marine pollution had continued (A/S-19/29, para. 36).

196. The General Assembly therefore concluded that there was a need to continue to improve decision-making at the national, regional and global levels, as well as an urgent need for Governments to implement the decision of the Commission on Sustainable Development calling, inter alia, for periodic intergovernmental reviews by the Commission of all aspects of the marine environment and its related issues, the legal framework of which was provided by UNCLOS. The Assembly also stressed the need for concerted action by all countries and for improved cooperation to assist developing countries in implementing the relevant agreements and instruments so that they might participate effectively in the sustainable use, conservation and management of their fishery resources, as provided for in UNCLOS and other international legal agreements. Moreover, on fisheries issues, Governments were invited, inter alia, (a) to prevent or eliminate excess fishing capacity and overfishing through the adoption of measures and mechanisms to ensure the sustainable management and utilization of fishery resources and to undertake to reduce and eliminate wasteful fishing practices, especially in relation to large-scale industrialized fishing; (b) to consider the positive and negative impact of subsidies on the conservation and management of fisheries through national, regional and appropriate international organizations and, based on these analyses, to consider appropriate action; and, (c) to take actions to improve the quality and quantity of scientific data on which effective decisions related to the conservation and management of living marine resources would be based, emphasizing the need to assist developing countries and to collect biological and other fisheries-related information, for its collation, analysis and dissemination.

197. In recognition of the seriousness of the impact of subsidies to the fishing industry, a joint UNEP/World Wide Fund for Nature (UNEP/WWF) Natural Resource Management Workshop was held recently at Geneva to discuss the role of trade policies in the fishing sector, in order to clarify the role of fishing subsidies as a major contributor to the global fisheries crisis and with a view to developing recommendations and policy options to ensure sustainable trade in fishery resources.

2. Marine and coastal biodiversity

198. The first Meeting of Experts on Marine and Coastal Biological Diversity (Jakarta, 7-10 March 1997), convened under the aegis of the Convention on Biological Diversity, held extensive discussions on several marine issues related to mariculture, sustainable use of marine and coastal living resources, marine and coastal protected areas, and integrated marine and coastal management (see paras. 234-241).[16]

199. Among the recommendations agreed by the Meeting, emphasis was placed on the importance of regional, national and local activities to be undertaken along with the Biodiversity Convention mechanism for the implementation of its provisions in relation to marine and coastal biodiversity, as well as the need to apply precautionary approaches to biodiversity impacts. Another recommendation was to implement the Integrated Marine and Coastal Area Management (IMCAM) concept at different levels, ranging from local and national to regional and global, using existing mechanisms such as the Regional Seas Programmes and relevant conventions at the regional level, and at the global level, the framework of UNCLOS. In addition, the Meeting recognized the contribution of the 1995 Fish Stocks Agreement as a link between marine biodiversity and ecological processes in the open ocean. It also recommended that certain areas beyond the limits of national jurisdiction (spawning areas, deep ocean trenches and certain hydrothermal vents) be proclaimed as oceanic protected areas.

200. With a view to implementing its recommendations, the Meeting also proposed a three-year workplan that would allow the experts, to: (a) undertake a thorough evaluation of the precautionary approach on biodiversity; (b) review existing instruments relevant to IMCAM and develop guidelines for ecosystem assessments; (c) address the need to develop ecosystem-level approaches to the sustainable use of marine and coastal living resources, including the identification of key variables or interactions for the purpose of assessing and monitoring biodiversity impacts, sustainable exploitation and ecosystem effects; and (d) consult with intergovernmental organizations and States parties on operational considerations for the establishment of marine and coastal protected areas as well as to conduct research on the effects of such protected areas on population size and dynamics, within those surrounding areas.

201. Furthermore, in recognition of the importance of mariculture production, which has grown at a rate of about 5 to 7 per cent annually, and which is thought to offer possibilities for sustainable protein-rich food production and for economic development of local communities, the Meeting's three-year workplan undertook also (a) to convene a meeting of experts to evaluate the application

to mariculture of precautionary approaches to fisheries; (b) to provide for the development of sustainable mariculture; and (c) to develop linkages with the Convention on International Trade in Endangered Species (CITES) on the application of CITES appendices to vulnerable and endangered commercial species. Mariculture is generally defined as aquaculture practised in marine or brackish water and is assumed to include culture-based fisheries.

3. Regional review of the status of fisheries and of conservation and management measures[17]

Atlantic Ocean

202. The International Commission for the Conservation of Atlantic Tunas (ICCAT), whose area of competence covers the entire Atlantic Ocean, including adjacent seas, adopted at its tenth special session (San Sebastian, Spain, 22-29 November 1996) several recommendations concerning the management of the Atlantic tuna. These included the establishment of an observer programme for longliners, purse seiners and baitboats fishing for bigeye and yellowfin tunas; the prohibition of purse seine fishing operations during August and the use of aircraft supporting fishing operations during June in the Mediterranean Sea; the establishment of a scientific monitoring quota for bluefin tuna in the western Atlantic Ocean for 1997 and 1998 and an annual catch limit for southern albacore fished in the Atlantic Ocean south of 5° North; the determination of a total allowable catch for North Atlantic swordfish for 1997, 1998 and 1999; and the prohibition of the import of Atlantic bluefin tuna and its products from Belize, Honduras and Panama for the failure of those countries to respect ICCAT conservation and management measures.[18]

North Atlantic Ocean

203. In the north-west Atlantic, cod fishery was under moratorium off the coast of Canada and sharp limits were imposed on New England's commercial fishing fleets for cod, haddock and flounder fisheries in order to preserve every species in every major fishing area.[19] In addition the Northwest Atlantic Fisheries Organization (NAFO) requested Contracting Parties to record their catches on a daily basis and to report monthly catches by species and stock area. In the redfish and flatfish fisheries, discards of cod were to be reported in addition to other regular reporting.[20] In the north-east Atlantic, it was found that many demersal ground fish stocks had been intensively exploited and some of the stocks were now considered to be outside safe biological limits. The International Council for the Exploration of the Sea (ICES), which provided management advice to the Northeast Atlantic Fisheries Commission (NEAFC), had already recommended a moratorium on cod fisheries off Greenland until there was evidence of a full recovery of the stocks and had suggested a continuation of the current regime of harvesting 25 per cent of the available biomass off Iceland in order to ensure the rebuilding of the cod stock in Icelandic waters.[21] Furthermore, it has been reported that the Baltic Sea wild salmon faced severe competition and in addition was threatened by diseases from reared stocks. The situation has led ICES to recommend the total closure of Baltic wild salmon fisheries.

Central Atlantic Ocean

204. In the western central Atlantic, fisheries have been characterized by increasing catches and high fishing pressure, although knowledge of stocks was generally poor and sustainable levels of fishing mortality were unknown for most species. It was believed that many species of reef fish that supported important local fisheries have been reported as fully or over-exploited, and there was also general concern about the considerable increase in landings of sharks and rays. As for pelagic fisheries, it was generally agreed that they were divided in the area into large offshore pelagics with oceanic distribution, large coastal pelagics with a regional distribution and small pelagics. Most of the large species assessed by ICCAT were considered to be fully or over-exploited. Therefore any plans to expand fisheries for those species within the area should be made taking into account ICCAT findings and results. In contrast to the stocks falling under the competency of ICCAT, the status of the stocks of the more common locally distributed large pelagics was unknown. Moreover, crustacean fisheries were considered to be over-exploited in many countries, and therefore needed an effective management strategy. In addition, environmental degradation seemed to be the subject of concern in some areas and fisheries within the region as a result of ongoing coastal development and the impact of development in inland areas. The Committee for the Development and Management of Fisheries in the Lesser Antilles of the Western Central Atlantic Fishery Commission (WECAFC) had consequently called for an investigation into the impact of environmental degradation as a priority.

205. In the eastern central Atlantic, fisheries were characterized by the dominance of small pelagics, especially sardines and other clupeids, which accounted for nearly 50 per cent of total catches. Although assessment of these stocks was difficult owing to their high variability, it was believed that they were moderately exploited off Morocco in the north to Senegal in the south and were under-exploited in the northern shelf of Angola and in the South Gabon-Congo region. As to the status of demersal stocks, it was believed that the total catches on the Mauritanian continental shelf had decreased and those off Senegal were considered to be lightly over-exploited, while the stocks off Gambia were fully or over-exploited and those located in southern areas were either close to fully or fully exploited. The Fishery Committee for the Eastern Central Atlantic (CECAF) has therefore recommended that fishing reduction and redistribution would be beneficial, since fishing was currently concentrated in some areas in the inshore zone and on juvenile fish.

South Atlantic Ocean

206. In the South-west Atlantic, where fish production consists mostly of demersals and squids of the southern Patagonian shelf, most of the fish stocks were considered to be fully exploited or over-exploited. It is believed that Argentine hake was fully exploited, or slightly over-exploited. Southern blue whiting and the Patagonian grenadier were moderately to fully exploited. While stocks of the main deepwater demersal species such as pink cusk eel and Patagonian toothfish were considered to be moderately exploited, several coastal demersal species seemed to be moderately to fully exploited, with some local stocks probably over-exploited. In addition, the Brazilian sardinella was considered to be overfished and had also been affected by some adverse

environmental conditions. Argentina anchoita, off Uruguay and Argentina, was under-exploited and catch of tunas might hold room for expansion, whereas the main stocks of the Patagonian squid were fully to over-exploited. FAO has indicated that, despite a growing concern over the state of exploitation of some fish stocks, updated assessment and management of fisheries in the area have diminished in recent years owing to the slowing down in the activities of organizations or working groups which used to report on the issues, or to the unavailability of information compiled within bilateral arrangements.

207. In the South-east Atlantic, which includes zones under the jurisdiction of Angola, Namibia and South Africa, Cape hake provided the highest catch volumes. The main pelagic stocks were sardine and anchovy. Apart from some small pelagic species, most fisheries were fully exploited, including most of the demersal stocks. It was hoped that the recent request for assistance by Namibia to the Commonwealth over the possible establishment of a regional fishery organization could be of benefit to the conservation and management of fish stocks in the area.[22]

Mediterranean Sea

208. In the Mediterranean Sea, the apparent anomaly between restricted shelf areas with high trawling intensity and a long-term rise in fisheries production has prompted member countries of the General Fisheries Council for the Mediterranean (GFCM) to search for major causative factors for the apparent resistance of the stocks as a whole to the usual effects of heavy fishing. It was suggested that high levels of nutrients from rivers and declines in larger predators could be the cause of this unusual situation. It has been noted, however, that small pelagic species had shown wide fluctuations in abundance, and bluefin tuna stocks were considered to be depleted, while most demersal stocks were considered to be fully to over-exploited. Consequently, the Second European Union Ministerial Conference on the Management of the Fishery Resources of the Mediterranean Sea (Venice, 27-29 November 1996) adopted a Solemn Declaration that would require coastal States and all States fishing in the Mediterranean Sea to: (a) ensure efficient conservation and management of all stocks; (b) implement effective control of compliance with international conservation and management measures at the regional or subregional level; (c) reinforce the competent regional fisheries management organizations; (d) continue the measured reduction of fishing effort in accordance with the sustainable exploitation of fishery resources; (e) reinforce regional cooperation for the collection and exchange of scientific data; and (f) set up a working group of legal and technical experts to develop a system of conservation and management for the Mediterranean to be submitted in October 1997 to the GFCM meeting (see Law of the Sea Bulletin No. 35 in press).[23]

Indian Ocean

209. In the western Indian Ocean, a recent decline in total marine fishery catches has been attributed to a drop in the landings of small pelagics, e.g., herrings and sardines, despite an increase in catches reported for large pelagics, e.g., skipjack and yellowfin tuna, crustaceans and shrimps. Although the very large number of small fishing vessels as well as the size and range of fishing activities in areas such as the eastern Arabian Sea have made monitoring

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of stock status difficult, it is believed that fisheries in other areas, such as the Persian Gulf, the Gulf of Oman, the Red Sea and the Gulf of Aden have become fully exploited or might even be over-exploited. It has also been noted that with the more lucrative oceanic fisheries harvested mostly by distant-water fishing fleets, shrimp catches had become important components of landings in Mozambique, Madagascar and the United Republic of Tanzania. These stocks were, however, considered to be fully exploited, and more effective management frameworks were being implemented by the respective national fisheries administrations of the aforementioned countries. In addition, most of the coastal fish stocks from Somalia to Mozambique harvested by local artisanal fisheries of coastal States were considered to be fully exploited or over-exploited.

210. In the eastern Indian Ocean, fisheries were characterized by increased fishing pressure, especially in inshore areas, insufficient information regarding the fish stocks, as well as ad hoc management initiatives lacking a scientific basis. While the main problems in the northern areas seemed to be the over-exploitation of the resources in coastal waters owing to population pressure and marine pollution caused by limited waste treatment, the southern areas have experienced a decline in fish catches which could be attributed to an increase in fishing pressure, environmental changes or both.

Pacific Ocean

211. In the North-west Pacific, there has been a marked decreased in the Alaskan pollock and Japanese pilchard (sardine) catches by 45 per cent and 76 per cent respectively, caused by excessive fishing pressure in such areas as the Sea of Okhotsk and the western Bering Sea. As a consequence, catch-per-effort unit had declined and in some areas there had been a shift in catches from large high-valued fish to lower-valued smaller fish, thus making a reduction of fishing effort in some areas an urgent priority.

212. In the North-east Pacific, the most important fish species include Alaska pollock, Pacific cod, herring, yellowfin sole, North Pacific hake, tunas and salmons. Alaska pollock was by far the most important species, constituting about 40 per cent of Pacific catch volume in 1994. Species considered to be fully exploited include Pacific cod (in the Gulf of Alaska), Pacific halibut, sablefish, groundfish stocks off the United States Pacific coast and Pacific whiting (hake). Flatfish other than halibut were abundant and underutilized in the Bering Sea and the Gulf of Alaska owing to by-catch restrictions on other species in the same area. Jack mackerel were also underutilized and Pacific herring stock levels were fairly healthy. As to the status of anadromous stocks, the salmon dispute between Canada and the United States has recently resumed (A/49/631, paras. 163-164) as a consequence of an impasse[24] in the negotiations over the renewal of the 1985 treaty between the two States concerning the apportionment of fishing quotas for the Pacific salmon spawning in Canadian rivers.

213. In the western central Pacific where coastal fisheries were still dominant in the major fishing countries, efforts were mainly directed at shrimp species. While shrimp exports from capture fisheries had gone from relatively constant to declining, those from aquaculture had exceeded them. Additionally, the catch of

cephalopods, which had potential for further development, has increased, and tuna has remained an important export commodity for the area. With respect to the overall status of fisheries, despite an increase in catches in the region, strong indications of overfishing exist for some species in coastal waters. Despite various management measures introduced by several countries, e.g., closed seasons, closed areas and mesh size regulations, fishing pressure has continued to increase. The situation was further complicated by an increase in human populations and the resulting environmental concerns in coastal areas. To address these issues, the Asia-Pacific Fisheries Commission (APFIC) convened at Seoul in October 1996 a Symposium on Environmental Aspects of Responsible Fisheries.

214. In the eastern central Pacific, the total catches were mostly from pelagics, followed by much lower volumes of squid, shrimp and coastal demersals. As to the status of these resources, it was believed that the main tuna stocks managed by IATTC were considered to be fully exploited. It has also been reported that other small pelagics were believed to be only moderately exploited; California sardine was considered to be fully exploited and anchovy seriously depleted off the coast of Mexico. It was, however, assumed that since these small pelagics were under-exploited off the coast of the United States, which was part of their distribution range, declines in overall abundance of the two species might therefore be related to environment changes reported elsewhere for similar species. In addition, while demersals were reported as being under-exploited to moderately exploited, and squid to be unexploited or under-exploited in some areas, the main wild stocks of shrimp, with the exception of some deepwater stocks, were considered to be either fully exploited or over-exploited. In this connection, it should be noted that IATTC, at a recent meeting held in Panama, adopted a declaration that endeavoured to establish conservation and management measures aimed at ensuring the long-term stability of tuna stocks and other stocks of living marine resources in the eastern Pacific, based on the best scientific evidence, including the use of the precautionary approach.[25]

215. In the South-west Pacific, the bulk of landings of orange roughy, blue grenadier, squid, and jack and horse mackerel were caught by New Zealand, while Australian catches include a large variety of species such as scallops, lobster and orange roughy. Several stocks had recently shown signs of overfishing and as a consequence most species were under a quota management system. In terms of offshore fisheries, yellowfin and skipjack tuna were believed to be under-exploited, while southern bluefin tuna were considered to be over-exploited. Fisheries scientists had forecast that if current fishing levels for southern bluefin tuna continued the species would have only about a 15 per cent chance of recovery within the next quarter of a century. Some NGOs have therefore called for a temporary moratorium on all southern bluefin tuna fisheries.

216. In the South-east Pacific, the abundance of fishery resources was subjected to serious fluctuations owing to the effects of prevailing environmental conditions, such as the "El Niño" phenomenon. As to the overall status of various stocks, it was believed that among the pelagics, the Peruvian anchoveta, along with some herring stocks and the South American sardine, were considered to be fully to heavily exploited or even over-exploited, Chilean jack mackerel and yellowfin tuna were fully exploited and the eastern Pacific bonito and the

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chub mackerel were moderately exploited. Among the demersals, the South Pacific hake stocks were considered to be fully to heavily exploited as were others such as the Patagonian grenadier. Other species such as the Patagonian hake, toothfish and conger have shown signs of over-exploitation. Among invertebrates, squid were believed to be moderately exploited, shrimp to be fully to heavily exploited and shellfish were considered to be over-exploited in some areas and lightly exploited in others.

217. IATTC, as the fisheries organization competent for managing tuna fisheries in the region, had applied a combined scheme of fishing effort controls, catch quotas and closed seasons to regulate fishing. Other regional organizations, such as the Permanent Commission for the Southeast Pacific (CPPS) and the Latin American Organization for the Development of Fisheries (OLDEPESCA), had also played an active role within their respective mandates, in dealing with various marine issues of concern to the region.

218. In the South Pacific islands, the main types of fisheries in the region were traditionally distinguished by their pattern of operation and their mode of administration. On the one side, the industrial fisheries, the main target of which was tuna, were operated by distant-water fishing fleets through access agreements. On the other, small-scale coastal fisheries were divided between those targeting export products and those fishing for domestic consumption. One main issue for concern of the tuna fisheries in the industrial sector was that fishing efforts were not considered to be optimally distributed, since they were only concentrated around Micronesia; another was that the volume of coastal fish catches and the status of stocks were little known, given the fact that export categorization was considered to be often confused and stock assessment virtually non-existent; and while conservation and management measures were established by the Forum Fisheries Agency (FFA) for foreign fishing fleets operating in the region, including a regional cap on the number of purse-seine vessels allowed to operate, localized excess capacity was being experienced in coastal fisheries around atolls and reefs.

219. In furtherance of the conservation and management of fisheries resources in the South Pacific, the Second Multilateral High-level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, held at Majuro, Marshall Islands, from 10 to 17 June 1997, agreed, inter alia: (a) to establish a mechanism for the conservation and management of highly migratory fish stocks in the region; (b) to cooperate effectively throughout their range of distribution; (c) to ensure compatible conservation and management measures; (d) to share fishing activity data; (e) to cooperate in monitoring, control and surveillance of fishing activities; and (f) to provide assistance to Pacific island developing States to enhance their ability to conserve and manage their own resources.[26]

Antarctica[27]

220. The status and trends of the existing fisheries, status of marine mammal and seabird populations, including their incidental mortality during fishing operations, by-catch of fish in the krill fishery, new and exploratory fisheries, illegal fishing of non-members in the Convention area, and inspection of fisheries and compliance with the conservation and management measures, were

the main subjects of discussions of the Fifteenth Meeting of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), which was held at Hobart, Australia, from 21 October to 1 November 1996.[28]

221. Following the advice of its Scientific Committee and Standing Committee on Observation and Inspection, CCAMLR recommended, inter alia, the following conservation and management measures: (a) minimization of the incidental mortality of seabirds in the course of longline fishing or longline fishing research in the Convention area; (b) regulation of the use and disposal of plastic packaging bands on fishing vessels to reduce the mortality of fur seals; (c) authorization of experimental crab fisheries in some areas for the 1996/97 and 1997/98 seasons; (d) specific conservation measures for new fisheries; (e) prohibition of directed fishery and adoption of a precautionary catch limits for some species; and (f) a data reporting system for trawl and longline fisheries. To deal with contraventions of CCAMLR conservation measures, the Commission undertook to strengthen communications between CCAMLR and non-State parties, to improve the status and implementation of the procedures of its system of inspection, as well as for the gathering of information required from member States during the course of such inspection. As to the question of illegal fishing by non-members, it decided to convey a firm message to non-States parties whose vessels had been implicated in undermining the effectiveness of its conservation measures in the Convention area.

222. Some CCAMLR member States had in particular expressed serious concern over the illegal and unregulated fishing of Antarctic toothfish in the regulatory area. They were of the view that such fishing represented a deliberate challenge to the Convention on the Conservation of Antarctic Marine Living Resources and put at risk the excellent management guidelines and practices that CCAMLR had developed in recent years to ensure the sustainable management of marine living resources, including effective measures to mitigate seabird by-catch, a particular problem in longlining, which was the main method of catching toothfish. Those States had also indicated that there was strong evidence that the illegal fishing activities were damaging the vulnerable dependent and associated ecosystems of Antarctica and of the Southern Ocean around the continent and was having effects even beyond the CCAMLR region. They therefore decided to work with other CCAMLR parties and States affected by the illegal fishing to develop effective responses to the toothfish problem at the regional level.[29]

4. Conservation and management of marine mammals

223. In March 1997, the North Atlantic Marine Mammal Commission Scientific Committee (NAMMCO) reviewed new information on the abundance of several whale stocks in the North Atlantic. Data from the 1995 North Atlantic Sightings Survey for cetaceans (NASS-95) were used as the basis for revised estimates for the surveyed areas. According to the results of the survey, the total of the combined stocks of the central North Atlantic and the North-east Atlantic was estimated at 184,000 minke whales. Revised estimates for fin and sei whales in North Atlantic waters east of Greenland were 22,800 and 9,250 respectively. In addition, on the basis of the advice of the Scientific Committee, the NAMMCO Management Committee concluded at its last meeting (Torshavn, Faroe

Islands, 28-30 May 1997) that the annual catch of pilot whales in the Faroe Islands was sustainable.[30]

224. The South Pacific Permanent Commission (CPPS) reported that States member of the organization, with the purpose of enhancing the application in the South-east Pacific of the Global Programme of Action for the Conservation, Management and Use of Marine Mammals, have approved a Plan of Action for the Conservation of Marine Mammals in the region. A 1995 meeting of experts that analysed activities under the Plan of Action had concluded that there was very good progress in terms of research, management and legislation to protect the species. In addition, following the organization of a regional course on catch monitoring, data collection techniques and assessments, as well as national studies on the development of techniques for monitoring marine mammal mortality rates, several projects were currently being carried out to launch various campaigns with the purpose of increasing awareness among communities of artisanal fishermen and authorities.[31]

225. An Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area was adopted at an intergovernmental meeting held in Monaco in November 1996, under the aegis of the Convention on the Conservation of Migratory Species of Wild Animals. The Agreement, which intended to establish coordinated measures to achieve a favourable conservation status for cetaceans, would prohibit any deliberate taking of cetaceans and endeavour to maintain a network of specially protected areas to conserve cetaceans. The Agreement also included a conservation plan that detailed actions and measures that States parties were required to undertake.

5. Protection and conservation of sea turtles

226. Following the recent adoption of the Inter-American Convention for the Protection and Conservation of Sea Turtles (A/51/645, para. 167), the seventeenth Annual Symposium on Sea Turtle Biology and Conservation, attended by representatives of 38 countries, was held at Orlando, Florida, in early March 1997. In addition to the adoption of several measures of importance for the conservation of sea turtles, the meeting agreed, inter alia: (a) to request the United States Congress to reauthorize a strong Endangered Species Act to support the conservation of species such as sea turtles; (b) to make an appeal to India to enforce strong protection for the Olive Ridley nesting beach at Gahirmatha; (c) to urge all States in the western hemisphere to ratify quickly and enforce the Inter-American Treaty for the Conservation of Sea Turtles; and (d) to call upon all States to enforce the FAO Code of Conduct for Responsible Fisheries.

C. Protection and preservation of ecosystems, habitats and species

227. Coastal, ecosystems including reefs, mangroves, seagrass beds and lagoons, account for almost one third of all marine biological productivity. Estuaries, mangroves and other wetlands serve as nursery areas and habitats for a

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significant number of marine species. Coral reefs contain the highest levels of known diversity among marine species. Coastal ecosystems in general have been the most heavily affected by human activity. Coastal development, resulting in physical alteration, destruction and degradation of habitats, over-exploitation of living marine resources, pollution, especially from land-based activities, introduction of alien species, together with other factors plays a major role in jeopardizing marine ecosystems and marine and coastal biodiversity. These threats cannot be treated separately, as ecosystem functions and processes are interconnected over wide distances.

228. In non-coastal areas, species richness is highest on the deep-ocean floor and at mid-depths of 2,000 to 3,000 metres on the abyssal plain. While the current state of knowledge regarding species distribution and abundance is poor, some trends are apparent and it seems that the highest overall diversity occurs in the tropics, particularly in South-East Asia and the South Pacific, the Indian Ocean and the Caribbean Sea region.[32]

229. The obligations States have under UNCLOS to protect and preserve the marine environment, including rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life (article 194(5)), and the duty they have to conserve and manage marine living resources in areas under national jurisdiction and beyond, provide, together with other relevant provisions of the Convention and the 1995 Fish Stocks Agreement, a solid foundation for an ecosystem approach to managing and protecting the oceans and their resources. This is also recognized in chapter 17 of Agenda 21 which states that UNCLOS provides the legal framework upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources.

230. The provisions of UNCLOS are complemented by those of the Convention on Biological Diversity and the Jakarta Mandate on Marine and Coastal Biological Diversity - the Programme of Action for implementing the Biodiversity Convention with respect to the conservation and sustainable use of marine and coastal biological diversity.

231. Contracting Parties to the Biodiversitiy Convention are required to implement it with respect to the marine environment with the rights and obligations of States under UNCLOS (article 22). In addition to UNCLOS, there are a number of other global conventions and a series of regional agreements through which parties can work to achieve the objectives of the Convention on Biological Diversity. Initiatives such as the 1995 International Coral Reef Initiative and the proclamation of 1997 as the International Year of the Reef also help to support the Convention's objectives.

232. The first Meeting of Experts on Marine and Coastal Biological Diversity, at Jakarta, held from 7 to 10 March 1997, which identified the priorities to implement the Jakarta Mandate, emphasized the important role to be played by various Convention mechanisms in the effective implementation of the provisions of the Biodiversity Convention in relation to marine and coastal biodiversity issues and recommended that in order to avoid duplication of efforts and promote cost-effective cooperation, a full review of current initiatives addressing biodiversity-related issues should be carried out.[33] The Subsidiary Body on

Scientific, Technical and Technological Advice (SBSTTA) recommended that the Executive Secretary of the Convention on Biological Diversity should pursue further collaborative linkages with a wide range of agencies and organizations whose mandates and activities were relevant to the conservation and sustainable use of marine and coastal biological diversity. It recommended, inter alia, that a database of ongoing case studies, with special emphasis on integrated marine and coastal area management, should be assembled in cooperation with relevant bodies and organizations.

233. The Jakarta Mandate on Marine and Coastal Biological Diversity covers five thematic areas: (a) integrated marine and coastal area management; (b) marine and coastal protected areas; (c) sustainable use of marine and coastal living resources; (d) mariculture; and (e) alien species (see paras. 198-201).

1. Integrated marine and coastal area management

234. The first Meeting of Experts on Marine and Coastal Biological Diversity agreed that integrated marine and coastal area management constituted the most effective tool for implementing the Convention on Biological Diversity and that effective implementation would, inter alia, depend upon international and global cooperation, particularly for straddling fish stocks and marine pollution from land-based activities which might spread over large geographic areas. Consequently, the Meeting anticipated that the implementation of integrated marine and coastal area management would be linked to the actions taken on the basis of UNCLOS and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.[34]

235. The three-year workplan for implementing the Jakarta Mandate, which was approved by the SBSTTA, recommends that a review of existing instruments relevant to integrated marine and coastal area management and their implication for the implementation of the Biodiversity Convention should be carried out by the Convention secretariat with the collaboration of an informal inter-agency task force. It also recommends that guidelines for ecosystem evaluation and assessments be developed.

236. The current limited understanding of marine ecosystem processes, as well as the difficulty of scientifically establishing a cause-and-effect relationship between species abundance and contaminant stress[35] make the task of the policy makers and managers a difficult one. In fact, scientists and planners are increasingly recognizing the invaluable empirical knowledge of local communities.

237. The Meeting agreed also that the precautionary approach should take account of uncertainties in knowledge on biodiversity and recognize the need to take action in the face of incomplete knowledge.[36] In its recommendation III/2, SBSTTA recognized that the precautionary approach underlies the effective use of all coastal and marine living resources.

2. Marine and coastal protected areas

238. UNCLOS balances the right of States to use the ocean and its resources with the duty to protect and preserve the marine environment and conserve living resources. While the Convention does not specifically provide for the establishment of "marine protected areas", it envisages the possibility of protecting clearly defined areas of the marine environment from certain maritime activities, e.g., special areas established pursuant to article 211, paragraph 6, or measures taken in ice-covered areas (article 234). It does not prescribe what kind of measures States should take under articles 61, 119 and 194, paragraph 5, to conserve living resources within areas under national jurisdiction and beyond, and to protect and preserve rare or fragile ecosystems, habitats of depleted, threatened or endangered species and other forms of marine life. If States choose to establish a marine protected area, they must ensure that any regulatory measures they take within that zone are consistent with the provisions of UNCLOS and take into account the rights of other States within that area.

239. A number of measures have been elaborated over the years at either the global or the regional level to protect vulnerable marine areas and/or habitats and species, e.g., the IMO Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas; marine protected areas under the Convention on Biological Diversity and also under the Antarctic Treaty; sanctuaries under the International Convention on the Regulation of Whaling; and specially protected areas under the UNEP Regional Seas Agreements. Attention was drawn to the need for a coordinated approach in last year's report (A/51/645, paras. 235-237).

240. The three-year workplan approved by the SBSTTA recommends that the secretariat in collaboration with relevant intergovernmental, national and non-governmental organizations, should develop guidance on criteria for, and operational aspects of, marine and coastal protected areas.

241. The Meeting of Experts on Marine and Coastal Biological Diversity highlighted the unique significance of certain high seas and deep seabed areas (such as identified spawning areas, deep ocean trenches and certain hydrothermal vents) beyond the limits of national jurisdiction and called for consideration to be given to the development of means and modalities for the establishment of marine protected areas. The Meeting had suggested that the Biodiversity Convention secretariat include this issue in its collaborative relations with the Division for Ocean Affairs and the Law of the Sea.[37]

3. Alien species

242. Under article 196 of UNCLOS, States are required to take all measures necessary to prevent, reduce and control pollution of the marine environment resulting from the intentional or accidental introduction of new or alien species that may cause significant and harmful changes thereto.

243. The Jakarta Mandate distinguishes between inadvertent and intentional introductions of alien species. It states that non-intentional introductions

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primarily result from the discharge of ballast water, escapes from mariculture, organisms associated with species introduced intentionally and unauthorized releases by the public. Intentional introductions occur primarily from mariculture production, including marine ranching, although an additional significant pathway is by release of hatchery-spawned organisms into the wild for the purpose of augmenting wild populations, generally for future capture in fisheries or in an attempt to enhance a population that is under threat. Intentional and non-intentional introductions of alien species can pose threats to human health, harm living resources and aquatic life, damage amenities or interfere with other legitimate uses of the sea. Alien species once established are very difficult, if not impossible to eradicate.

244. IMO has been addressing the problem of the introduction of unwanted aquatic organisms and pathogens through the discharge of ships' ballast water (see paras. 303-306). Discharge of ballast water is said to be the most prominent media for transferring new or alien species.

D. Non-living marine resources

245. Oil and gas. Offshore oil and gas is by far the most important non-living marine resource sector. The year 1997 marks the fiftieth anniversary of the offshore hydrocarbon industry - the first well was installed in 1947 out of sight of land, about 10 miles off the coast of Louisiana at a depth of 100 feet in the Gulf of Mexico. (Small quantities of oil had been produced from near-shore platforms since 1937.) Fifty years later, the industry is envisaging producing oil and gas at a depth of 10,000 feet as far as 250 miles offshore, and "as long as the sediments in abyssal depths show promise, the pursuit of hydrocarbons will not end there".[38]

246. Viewed from the vantage point of the experience of 50 years, the significance of 1947 can be seen as a marriage of the technology of land-based oil and gas drilling systems with adaptations of technologies of two conventional marine activities: naval warfare, many of whose technologies were made available to the industry in the post-war period, and ocean transit. The concept of the oceans associated only with shipping, navy and fishing was changed forever.

247. The offshore oil and gas industry is currently experiencing a record year in terms of production of oil as well as of gas, and in terms of exploration activities. This is even more remarkable when we consider that the onshore side of the oil and gas industry has yet to recover from the continuing downslide of the past several years.

248. Experts believe that apart from the constant growth of world demand for energy and strong market-based, demand-driven prices, three elements have played a significant role in the growth of the offshore industry: (a) the application of new technology, especially 3D and 4D seismic data acquisition, processing and interpretation; horizontal drilling techniques; subsea completions; multi-phase pipelines; and the use of floating production, storage and offloading facilities; (b) the development of more favourable fiscal regimes; and (c) new

methods of project management which include turnkey, shared risk and reward, alliances and growth teams.

249. With the steady higher price of oil, exploration and development have been shifting into the frontiers in remote and difficult places where little search and discovery activities have taken place in the past, into the deepwater provinces and into select areas across the world where salt strata once obscured what lay beneath them. Recent surges have occurred in the four most active regions - the offshore United States Gulf of Mexico, the North Sea and emerging West Africa and South-East Asia.

250. The fiftieth anniversary of the offshore hydrocarbon industry is not only a vantage point for looking back among the business and research communities and others, but also for looking ahead. The advances in marine science and technology which spurred and were spurred by the offshore oil and gas industry during the past 50 years are also pointing to the oceans as a source of varied non-living resources.

251. *Gas to liquid*. Roughly half of all proven reserves of offshore natural gas is being left in the ground, mainly for lack of transportation infrastructure or because the gas is of less than pipeline quality. Much produced gas also never reaches the market because it is flared off as an unwanted by-product of oil production. This situation may be changing. Recent breakthroughs in catalyst technology, inexpensive and small-scale methods of converting natural gas into middle distillates have raised expectations that gas-to-liquid technologies should be even more economic and flexible by 2010. However, it should be noted that in this regard reaction among energy business observers ranges from pronouncements that vast new supplies of energy from untapped and flared gas are possible in the near future to a healthy scepticism.

252. *Methane hydrates*. Organic carbon resources in ocean-floor hydrates are estimated to be twice those found in all recyclable and unrecovered oil, gas and coal deposits on earth (A/51/645, para. 276). Over millions of years, low temperatures and high pressures on the ocean floor created the right conditions to trap rising gas (primarily methane) by forming frozen gas-water hydrates. Recent research suggests that the hydrate pads may be overlaying free methane and water rather than extending to indefinite depths. This has implications for developing technologies that would tap the underlying methane accumulation by attaching insulation systems cemented to the frozen hydrate pads. Japan has recently launched an exploration project for methane hydrates on the seabed in maritime areas under its jurisdiction. The current seismic surveys would be followed by drilling test wells in two locations scheduled for 1999. Commercial production is expected to start in 2010.[39]

253. Methane hydrates are also receiving more attention among the climate research community. So far, three possible causes of current climate aberrations and warming were being researched: activities by man; earth's natural warming and cooling cycles; and solar activity. The methane cycle, also known in some respects as the carbon cycle, is being added as a fourth factor. If the earth is relatively cold or the oceans deep, the methane ties up with water and deposits as a hydrate at the seabed or under permafrost; if the earth is warmer, methane emerges as a gas, enters the atmosphere and converts to

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carbon dioxide in the presence of oxygen and solar radiation. Methane hydrates are estimated to contain nearly 30 times the amount of carbon dioxide in the atmosphere.

254. Non-fuel minerals. Turning to non-fuel marine minerals, a recent joint venture between Namibia and South Africa in marine diamond mining is expected to benefit from the experience of the world's largest and the second-largest producers respectively. The joint venture plans to sell $13 million worth of diamonds annually from an indicated and inferred resource base worth tens of millions. The first commercial diamond mining ship went into operation in 1962 and by mid-1963 it had not only proved the existence in quantity of gem diamonds on the seabed but also started a new type of marine mining industry.

255. Seawater contains many minerals, such as gold, magnesium and cobalt. Extraction of these minerals from seawater would involve a low-cost high-volume procedure. The technology is available but the economics of the technology, to be more promising, may have to await the time when land-based mining of these minerals becomes much more costly than at present.

256. Polymetallic nodules. With regard to deep seabed minerals, in the case of polymetallic nodules, the seven pioneer investors registered under the auspices of the United Nations will be issued exploration contracts in the near future (see para. 20). The pioneer investors are: China, France, India, Japan, Republic of Korea, Russian Federation and a group of Eastern European countries along with Cuba. At present, activities are focusing on prospecting, data collection, and research and development on mining, lifting and processing technologies. Japan is reported to have completed work on the collector - a huge accumulator, 15 feet wide and about 45 feet long, which employs high-speed water currents to draw in materials at the rate of 125 metric tons per hour. Work has also been completed on the lift system that transfers material from the collector to the mining ship. A flexible but strong tube is used, 6 inches in diameter, which can stretch as long as 4 miles and is capable of withstanding 400 to 500 tons of pressure. After the assembly of the collector, the lift and the mining ship subsystems, an at-sea test of the whole system is expected to be carried out in 1997 in waters off the Ogasawara archipelago, south of Tokyo.

257. Cobalt-rich crusts. Cobalt-rich manganese crusts have attracted interest as one of the marine mineral resources with the most potential for the early part of the twenty-first century. While gathering samples, however, researchers had limited success in slicing the crust and retaining the core in spite of improvements in corer bit and the use of large diameter gravity corer. Research and development efforts are currently focusing on methods for further improvements in core bit and catcher, including a method for rotary shearing from the cover; freeing the crust fracture through appropriate catcher design or improving the bit design to penetrate to the substrate of the crust.

258. Polymetallic sulphides. As regards the polymetallic sulphides found in or near deep sea hydrothermal vents (A/51/645, para. 284), the crucial parameters of the mining process have been identified as the capability to deal with the superheated water at the vents and to move the entire mineral-containing flow through long umbilicals to the surface. Japan has recently discovered a high-grade sulphide deposit in its territorial waters, west of Okinawa. The same

survey has made the additional important discovery that hydrothermal deposits may also occur beneath the muddy ocean floor around active hydrothermal areas.

259. With regard to deep seabed minerals currently the subject of research and development activities, it is worth mentioning that the National Institute of Science and Technology Policy of Japan's Science and Technology Agency forecasts that "practical technologies for the mining of deep-sea manganese nodules will be ready in 2010, and that technologies for exploiting hydrothermal deposits and cobalt-rich crusts will come two years later".[60]

260. Fresh water. Fuel and non-fuel minerals are not the only non-living resources provided by the seas and oceans; other resources include fresh water and the use of ocean space for the purposes of transportation, communication and waste disposal. At its nineteenth special session devoted to the review and appraisal of the implementation of Agenda 21, the General Assembly identified as an area of the highest priority the serious freshwater problems facing many regions, especially in the developing world. Nuclear desalination of seawater has been identified as a commercially viable technology by the General Conference of IAEA. Desalination facilities connected to nuclear power plants in Kazakhstan and Japan have been producing desalinated water for years.

261. IAEA has just completed a two-phase Options Identification Programme aimed at evaluating data relevant to a nuclear desalination demonstration and analysing the most practical options for such a demonstration.[61] Three options, using well-proven water-cooled reactors and desalination technologies, were recommended for further consideration: (a) a reverse-osmosis desalination plant with limited water production capacity in combination with a medium-size nuclear power reactor under construction or in an advanced design stage with near-term construction expected (this combination can be easily applied to larger commercial water-production facilities); (b) a reverse-osmosis desalination plant of limited size as in (a), in combination with a reactor currently in operation, with some minor modifications for integration (again this combination can be extrapolated to a commercial-size production facility); and (c) multi-effect distillation desalination in combination with a small reactor to be newly constructed, which would be suitable for water production. According to IAEA, the next step in a nuclear desalination demonstration programme should be for one or more member States to proceed with preparatory actions for demonstration projects, including site selection and qualification, identification of user requirements, project specifications and the development of infrastructures as may be required for project implementation.

262. Another approach under investigation involves transporting fresh water to arid countries as ballast in tankers. This approach is gaining ground as many obsolete tankers otherwise going for scrap can now be made available for transporting water.

263. International cooperation. Non-living marine resource development has a long history of international cooperation, especially bilateral cooperation. What is significant and somewhat unique is that in many cases where property rights are not well defined because of a lack of jurisdictional resolution, the parties concerned have voluntarily entered into agreements involving joint resource development, partially dictated by the demand for the resources,

pending resolution of jurisdictional matters. The agreements themselves are in contractual forms detailing terms and conditions applicable to all parties concerned.

264. The period under review has witnessed the conclusion of a number of such agreements, including an agreement between China and Japan for joint exploration and development of an island group in the East China Sea, and a Malaysia-Viet Nam commercial agreement for offshore hydrocarbon development in the Malay basin. The period has also marked the emergence/persistence of a few cases where non-living marine resource development has pointed to the need for joint resource development agreements or the resolution of jurisdictional issues. These cases include the Bakassi peninsula in the south-eastern Niger delta (Nigeria and Cameroon), the Zafiro field also in the south-eastern Niger delta (Equatorial Guinea and Nigeria), and the northern South China Sea (China and Viet Nam) (see para. 369).

265. With respect to the form of enterprise, joint ventures between internationally operating oil production and service companies and indigenous companies in developing countries are a growing phenomenon in today's petroleum industry, both onshore and offshore. In view of such growth the International Finance Corporation of the World Bank recently conducted a study of the efficacy of joint ventures. The study found that a few firms would choose a joint venture if there were a practical alternative, but that the joint ventures usually proved successful over a period of years. Essentially, it was concluded that both companies need to feel over time that the contributions of each partner are essential to the continued success of the partnership, but that they are fragile affairs and replete with potential problems that have to be solved if that success is to be achieved.[illegible]

E. Protection and preservation of the marine environment from all sources of pollution

1. Land-based sources of pollution

266. Land-based sources are responsible for most of the pollution of the oceans and affect the most productive areas of the marine environment. Article 207 of UNCLOS requires States to adopt laws and regulations to prevent, reduce and control pollution from land-based sources and to endeavour to establish global and regional rules, standards and recommended practices and procedures, acting especially through competent international organizations and diplomatic conferences.

267. Two international documents were adopted by an Intergovernmental Conference in November 1995: the Washington Declaration on the Protection of the Marine Environment from Land-based Activities and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (A/51/116). The Global Programme of Action addresses the impacts of land-based activities on the marine and coastal environment including contaminants, physical alteration, point and non-point sources of pollution, and such areas of concern as critical habitats, habitats of endangered species and protection of ecosystem components such as breeding and feeding grounds.

268. The General Assembly, at its fifty-first session, adopted the institutional arrangements for the implementation of the Global Programme of Action on 16 December 1996 (resolution 51/189). The Assembly designated UNEP as the lead agency in the implementation of the Global Programme of Action. In this connection, the UNEP Governing Council in its decision 19/14 A of 7 February 1997 endorsed UNEP's role as secretariat of the Global Programme of Action, and accorded priority to the implementation of the Programme of Action in UNEP's work programme. The Council further confirmed the need, expressed in Assembly resolution 51/189, for States to take action at the next meetings of the governing bodies of the relevant United Nations organizations to endorse those parts of the Programme of Action relevant to their respective mandates. In the same decision, the Council also requested the Executive Director of UNEP to communicate with the governing bodies of the relevant organizations and programmes, recommending that each competent international organization formally endorse those parts of the Global Programme of Action relevant to its own mandate and that each organization accord priority to the Global Programme of Action in its own programme.[43]

269. Concerning inter-agency cooperation, the UNEP Governing Council in the same decision invited the Administrative Committee on Coordination (ACC) Subcommittee on Oceans and Coastal Areas, in collaboration with its Subcommittee on Water Resources, to perform the functions of a steering committee on technical cooperation and assistance for the Global Programme of Action, including activities related to the clearing house. The Subcommittee on Oceans and Coastal Areas was established in 1993 in order to coordinate inter-agency follow-up to 1992 UNCED recommendations, particularly those contained in chapter 17 entitled "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources". Regarding institutional arrangements, a Technical Coordination Office is being established at The Hague by UNEP. One of its major tasks will be to facilitate the required clearing house mechanism.

270. The programme for the further implementation of Agenda 21, adopted by the General Assembly at its nineteenth special session (A/S-19/29, annex), included among the areas where urgent action was required the need for all Governments to implement the institutional arrangements contained in General Assembly resolution 51/189.

271. Regarding particular actions for further implementation of the Global Programme of Action, the Executive Director of UNEP was requested by the Governing Council in its decision 19/13 C of 7 February 1997 to prepare for and convene, together with the World Health Organization (WHO) and other relevant international organizations, an intergovernmental negotiating committee with a mandate to prepare an international legally binding instrument on persistent organic pollutants.[43] The Intergovernmental Negotiating Committee is expected to commence its work in early 1998.

272. In its efforts to further implement the Global Programme of Action, UNEP has sponsored regional and subregional intergovernmental workshops in four regions (South-east Pacific, Red Sea and Gulf of Aden, Kuwait Action Plan and East Asian Seas) in 1996, and four others during 1997 (Eastern Africa, Western and Central Africa, South Asian Seas, and Upper South-west Atlantic).

273. UNEP has also recommended that States parties to regional seas conventions and action plans find the means to expand the scope of existing instruments, as appropriate and necessary, to allow the monitoring of marine pollution from land-based activities under the various instruments. This might include inviting landlocked riparian States to become parties to tne conventions or action plans (see para. 345); expanding the scope of the conventions to include inland waters or drafting protocols to address marine pollution from land-based activities.

274. At its most recent meeting, held at Nairobi from 14 to 18 April 1997, the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) identified, among the matters of particular concern regarding degradation of the marine environment, the possibility of substantial increases in pollution from land-based sources as a result of the recently adopted Protocol to the London Convention which bans disposal from ships and barges of most wastes, except normal harbour dredging spoils. In particular, these substantial increases might arise from waste disposal through pipelines directly into coastal seas and into rivers that flow to the sea, resulting in significant additional pressure to the coastal zone.[44]

275. At the same session GESAMP also decided to proceed without delay in the preparation of a land-based activities report due in 1999 as part of the tasks entrusted to its Marine Environment Assessment Working Group.

276. The General Assembly on 21 May 1997 adopted the Convention on the Law of the Non-navigational Uses of International Watercourses (51/229). Under article 23 on protection and preservation of the marine environment, States are required, acting individually or in cooperation with other States, to take all measures with respect to international watercourses that are necessary in order to protect and preserve the marine environment.

2. Pollution from seabed activities including removal and disposal of installations and structures

277. Article 208 of UNCLOS imposes the obligation on States to adopt laws and regulations as well as to take the necessary measures to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction as well as from artificial islands, installations and structures under their jurisdiction pursuant to articles 60 and 80 of UNCLOS, which must be no less effective than international rules, standards and recommended practices and procedures. Such rules, standards and recommended practices shall be re-examined from time to time as necessary.

(a) Pollution from seabed activities subject to national jurisdiction

278. The 1973 International Convention for the Prevention of Pollution from Ships, as modified by the 1978 Protocol relating thereto (MARPOL 73/78), applies to pollution from "fixed and floating platforms" other than discharges resulting from the "release of harmful substances directly arising from the exploration, exploitation and associated offshore processing of seabed mineral resources".

Regulation 21 of annex I of MARPOL which deals with regulations for the prevention of pollution by oil, lays down special oil discharge requirements for drilling rigs and other platforms.

279. There are also specific provisions for "offshore units" in the preamble and articles 3 and 4 of the 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation. It may be noted that for the purposes of the draft Code of Safe Practice for the Carriage of Cargoes and Persons by Offshore Supply Vessels, which will be submitted to the IMO Assembly in November 1997 for adoption, fixed production platforms; floating production platforms; floating storage units; mobile offshore drilling units (MODUs); flotels; and floating production, storage and operations units are considered to be examples of offshore installations (MSC 66/24, annex 13).

280. In view of the current and anticipated increasing use of floating production storage and offloading facilities (FPSOs) and floating storage units (FSUs) (see paras. 357-361), concern has again been expressed in IMO regarding uncertainties surrounding the application of regulations of annex I of MARPOL to FPSOs, given their oil tanker-like characteristics. The issue was discussed in the Legal Committee in October 1996, at which time it was noted by some delegations that many of the FPSOs and FSUs operated in territorial waters or in the exclusive economic zone and were not engaged in international maritime transport and could therefore be dealt with under national law (LEG 74/13, para. 109). A proposal (by Greenpeace, MEPC 40/18/3) to include the issue on the agenda of the Marine Environment Protection Committee was submitted to that Committee at its fortieth session in September 1997 (see also MEPC 39/13, para. 4.5).

281. An international expert meeting on environmental practices in oil and gas activities has been organized by Brazil and the Netherlands and will be held in the Netherlands from 17 to 20 November 1997. The expert meeting is being convened pursuant to Commission on Sustainable Development decision 4/15 (see A/51/645, para. 140) to address the issue of degradation of the marine environment from offshore oil and gas platforms, taking into account the relevant expertise of IMO, UNEP and the Division for Ocean Affairs and the Law of the Sea.

(b) Removal and disposal of offshore installations and structures

282. According to IMO, approximately 6,500 offshore oil and gas installations currently exist worldwide and are located on the continental shelf of some 53 countries. Of these, over 4,500 are located in the Gulf of Mexico, 950 in Asia, 400 in Europe, 750 in the Middle East, 380 in Africa and 340 in South America. When oil and gas installations or structures are no longer needed, decommissioning must be carried out. After that there are a number of available options for dealing with the decommissioned installation or structure, ranging from reuse, e.g., as an artificial reef or for harbour construction; taking it ashore and recycling/scrapping or disposing of it or dumping, either in place or at another location.

283. In accordance with articles 60, paragraph 3, and 80 of UNCLOS, when removing an abandoned or disused installation or structure States must take into

account the 1989 IMO Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone (IMO Assembly resolution A.672(16)). Articles 208 and 210 of the Convention are also relevant in this context.

284. According to the 1989 IMO Guidelines no installation or structure should be placed on any continental shelf or in any exclusive economic zone on or after 1 January 1998, unless its design and construction is such that complete removal upon abandonment or permanent disuse would be feasible (para. 3.14). Installations standing in less than 75 metres of water (or less than 100 metres for installations put in place after 1 January 1998) and weighing less than 4,000 tons in air should be totally removed (paras. 3.1 and 3.2), except in certain cases (paras. 3.4 and 3.5).

285. If dumping at sea is considered an option for disposing of a decommissioned installation or structure, then article 210, read together with article 1 (5) (a), which defines dumping as any deliberate disposal of, inter alia, platforms or other man-made structures at sea, applies; and the coastal State is required to adopt laws and regulations to prevent, reduce and control pollution by dumping which are to be no less effective than global rules and standards. The global rules and standards are contained in the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention), which was recently amended by the 1996 Protocol.

286. The 1996 Protocol to the London Convention has amended the definition of "dumping" in the London Convention, which is also the definition used in article 1 (5) (a) of UNCLOS, to include within that definition "any abandonment or toppling at site of platforms or other man-made structures at sea, for the sole purpose of deliberate disposal". The Scientific Group at its twentieth session this year prepared the draft Waste Assessment Guidance concerning the dumping of platforms and other man-made structures at sea, to be further considered at the next session together with the possible attachment of a technical appendix, or a list of references on land-based alternatives to dumping (LC/SG 20/12, paras. 3.14-3.18 and annex 6).

3. Pollution by dumping and waste management

287. Article 210 of UNCLOS requires that the rules, standards, recommended practices and procedures relating to dumping that States should endeavour to establish be re-examined from time to time as necessary through competent international organizations or diplomatic conference. A re-examination of those global rules as contained in the 1972 London Convention resulted in the adoption by the Contracting Parties on 7 November 1996 of substantial amendments to the 1972 Convention in the form of a Protocol (document LC/SM 1/6) which will enter into force 30 days after ratification by 26 countries, 15 of which must be Contracting Parties to the 1972 Convention. The preamble to the Protocol states that the relevant international agreements and actions, especially UNCLOS and the Rio Declaration on Environment and Development, were taken into account by the Contracting Parties.

(a) Protocol amending the 1972 London Dumping Convention

288. Article 1 of the Protocol amends the existing definition of dumping, which is also the definition used in article 1 of UNCLOS, to include within the meaning of dumping "any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea"; and "any abandonment or toppling at site of platforms or other man-made structures at sea, for the sole purpose of deliberate disposal"; and to exclude from that definition "abandonment in the seabed and the subsoil thereof of matter (e.g., cables, pipelines and marine research devices) placed for a purpose other than the mere disposal thereof". When the Protocol is in force the definition of "dumping" as contained in the Protocol will supersede, as between the parties concerned, the definition contained in article 1 of UNCLOS. The definition of "sea" has been amended accordingly to include the seabed and the subsoil thereof, with the exclusion of sub-seabed repositories accessed only from land. The Protocol, like the 1972 Convention, excludes internal waters from the definition of "sea". A new definition of "pollution", which is based on article 1 of UNCLOS, has also been added to the Protocol.

289. The Protocol represents a major change of approach to dumping from the 1972 Convention. Article 3 requires Contracting Parties to apply a precautionary approach and the polluter-pays principle; and requires Contracting Parties, as article 195 of UNCLOS does, not to transfer damage or likelihood of damage from one part of the environment to another or transform one type of pollution into another.

290. The Protocol is much more restrictive than the 1972 Convention as regards the kinds of wastes that may be dumped. Instead of "black and grey lists" the Protocol prohibits the dumping of any wastes or other matter with the exception of the seven categories listed in annex 1, namely, dredged material; sewage sludge; fish waste, or material resulting from industrial fish processing operations; vessel and platforms or other man-made structures at sea; inert, organic geological material; organic material of natural origin; and bulky items primarily comprising iron, steel, concrete and similarly unharmful materials for which the concern is physical impact, and limited to those circumstances where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping. The last four categories of wastes and other matter may be considered for dumping provided that material capable of creating floating debris or otherwise contributing to pollution of the marine environment has been removed to the maximum extent and provided that the material dumped poses no serious obstacle to fishing or navigation. A permit is required for the disposal of wastes or other matter listed in annex 1. The Waste Assessment Framework is set out in annex 2 to the Protocol.

291. Incineration, a practice which was permitted under the 1972 Convention, but which has since been ended, is specifically prohibited by article 5 of the Protocol. Article 6 prohibits Contracting Parties from exporting wastes or other matter to other countries for dumping or incineration at sea. Article 7 on internal waters requires each Contracting Party at its discretion either to apply the provisions of the Protocol or to adopt other effective permitting or regulatory measures to control the deliberate dumping or incineration at sea.

It also requires each Contracting Party to provide IMO with information on legislation and institutional mechanisms regarding implementation, compliance and enforcement.

292. The importance of implementation is generally recognized in the Protocol and article 11 details compliance procedures under which, no later than two years after the entry into force of the Protocol, the Meeting of Contracting Parties shall establish those procedures and mechanisms necessary to assess and promote compliance. Article 26 allows new Contracting Parties to phase in compliance with the Convention over a period of five years. This provision is supported by extended technical assistance provisions.

293. Article 16 sets out procedures for the settlement of disputes. It provides that where the Contracting Parties fail after 12 months to settle their dispute through negotiation, mediation or conciliation, or other peaceful means chosen by the parties, the dispute must be settled by means of the arbitral procedure set forth in annex 3 to the Protocol, unless the parties agree to use one of the procedures listed in article 287, paragraph 1, of UNCLOS. The parties to the dispute may so agree, irrespective of whether they are also parties to the Convention.

294. In addition to the Protocol, the Contracting Parties adopted by resolution LC.55(SM) a framework for a technical cooperation and assistance programme under the London Convention, in order to promote ratification by developing countries of the 1996 Protocol, in particular those having been identified by the Global Waste Survey as having problems with waste management and disposal as well as those which are parties to UNCLOS and which are not Contracting Parties to the London Convention (sixth preambular paragraph of the resolution). By resolution LC.56(SM) on sea disposal of vessels, the Contracting Parties requested the Contracting Parties to the London Convention to provide information with particular regard to land-based alternatives, methods of assessment, procedures for preventing pollution and the rationale for sea disposal for consideration by the Scientific Group, and requested the Group within five years from the adoption of the resolution to review the adequacy of existing international provisions for sea disposal of vessels and to report to the Consultative Meeting.

295. The Scientific Group at its twentieth session in May 1997 prepared for consideration at the nineteenth Consultative Meeting later in the year with a view to their adoption: draft guidelines for the assessment of wastes or other matter that may be considered for dumping; and draft waste-specific assessment guidance for all waste categories listed in annex 1 to the 1996 Protocol other than dredged material and organic material of natural origin (see LC/SG 20/12, annexes 2-7).

(b) Management of radioactive waste

296. The General Assembly, in the programme for the further implementation of Agenda 21 (A/S-19/29, annex), underlined the importance of intensifying safety measures with regard to radioactive wastes. It recommended that States, in cooperation with relevant international organizations, where appropriate, should not promote or allow the storage or disposal of high-level, intermediate-level

or low-level radioactive wastes near the marine environment unless they determined that scientific evidence, consistent with the applicable internationally agreed principles and guidelines, showed that such storage or disposal posed no unacceptable risk to people or the marine environment and did not interfere with other legitimate uses of the sea. In the process of the consideration of that evidence, appropriate application of the precautionary approach principle should be made.

297. The General Assembly also noted that the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management currently being negotiated under the auspices of IAEA would provide a comprehensive codification of international law and a guide to best practices in that area (ibid., paras. 59 and 60).

298. The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management was adopted at an IAEA diplomatic conference on 5 September 1997 and was opened for signature on 27 September 1997. It is the first international instrument to address the safety of management and storage of radioactive wastes and spent fuel in countries both with and without nuclear programmes. One of its main objectives is to ensure that during all stages of spent fuel and radioactive waste management there are effective defences against potential hazards so that individuals, society and the environment are protected from the harmful effects of ionizing radiation, now and in the future, in such a way that the needs and aspirations of the present generation are met without compromising the ability of future generations to meet their needs and aspirations (art. 1). The Convention establishes a binding reporting system for Contracting Parties to address all measures taken by each State to implement the obligations under the Convention (art. 32). The preamble makes reference to both the London Convention as amended, and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

299. The Joint Convention also recognizes the right of any State to ban the import into its territory of foreign spent fuel and radioactive waste. Article 27 on transboundary movement is based on the IAEA Code of Practice on the International Transboundary Movement of Radioactive Waste. It requires a Contracting State which is a State of origin to take the appropriate steps to ensure that transboundary movement is authorized and takes place only with the prior notification and consent of the State of destination. Transboundary movement through States of transit shall be subject to those international obligations which are relevant to the particular modes of transport utilized. A Contracting Party which is a State of destination shall consent to a transboundary movement only if it has the administrative and technical capacity, as well as the regulatory structure, needed to manage the spent fuel or the radioactive waste in a manner consistent with the Convention. A Contracting Party shall not license the shipment of its spent fuel or radioactive waste to a destination south of latitude 60° South for storage or disposal. Nothing in the Convention prejudices or affects the exercise, by ships and aircraft of all States, of maritime, river and air navigation rights and freedoms, as provided for in international law.

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300. The Conference also adopted a resolution relating to the transboundary movement of radioactive wastes and spent fuel. The resolution recalls maritime, river and air navigation rights and freedoms as provided for in international law; recalls the provisions of chapter VII of SOLAS and the provisions of the International Maritime Dangerous Goods (IMDG) Code; and notes that the INF Code will enhance maritime safety and protection of the marine environment. It urges all States parties to the Convention to take into full consideration the IAEA Regulations for the Safe Transport of Radioactive Material (1996), and invites the IAEA in consultation, and where appropriate, in collaboration, with the competent organs of the United Nations and with the specialized organizations concerned, including IMO and UNEP, to keep under review the existing rules and regulations with respect to the safety of the transboundary movement of spent fuel and radioactive waste.[45]

(c) Management of hazardous wastes

301. As of 31 December 1997, all transboundary movements of hazardous wastes which are destined for recycling or recovery operations from the Organisation for Economic Cooperation and Development (OECD) to non-OECD States will be prohibited. Any non-OECD State not possessing a national hazardous wastes import ban which still allows the import of such wastes from OECD States is recommended to inform the secretariat of the Basel Convention of the categories and quantities of hazardous wastes which are acceptable for import, as well as the process to be used for recycling, and the final destination/disposal of the residues (decision II/12 adopted by the Conference of Parties to the Basel Convention at its second meeting in March 1994 (UNEP/CHW.2/30)).

302. The General Assembly at its nineteenth special session underlined the importance and urgency of completing the work on defining which hazardous wastes are controlled under the Basel Convention, and adopting and implementing a protocol on liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes (see A/S-19/29, para. 58).

4. Pollution from vessels

303. The marine environment can be adversely affected as a result of a legal, accidental or deliberate discharge of such pollutants as oil and oily wastes, noxious liquid substances, sewage, garbage, noxious solid substances, anti-fouling paints or foreign organisms directly into the marine environment or indirectly through the atmosphere.

304. Article 211 of UNCLOS requires States, acting through the competent international organization or general diplomatic conference, to establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels. National laws and regulations must at least have the same effect as the global rules and standards. Article 217 requires flag States to provide for the effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs. Furthermore, States are required to take appropriate measures to ensure that vessels flying their flag or of their registry are prohibited from sailing,

until they can proceed to sea in compliance with the requirements of the international rules and standards, including requirements in respect of design, construction, equipment and manning of vessels.

305. The international rules and standards dealing with operational discharges of pollutants relating to the normal operation of ships are contained in the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). Five annexes currently regulate preventive measures regarding five main categories of substances, namely oil (annex I); noxious liquid substances carried in bulk (annex II); harmful substances carried in packaged form (annex III); sewage (annex IV); and garbage (annex V). States ratifying MARPOL 73/78 must accept annexes I and II, but can choose not to accept the other three. Only annex IV is currently under review in the Marine Environment Protection Committee.

306. Some of the main recent developments, particularly under MARPOL 73/78, and at the regional level are outlined below:

(a) Pollution by oil

307. The IMO Marine Environment Protection Committee at its thirty-ninth session approved for adoption at the fortieth session: the addition of new regulation 25 A to annex I to specify intact stability criteria for double hull tankers; and a proposed amendment to regulation 10 to make the north-west European waters, which are defined as including the North Sea, the Irish Sea, the Celtic Sea, the English Channel and part of the North-east Atlantic immediately west of Ireland, a new Special Area under annex I (text of amendments are in document MEPC 40/9).[46]

(b) Pollution by garbage

308. An amendment to regulation 2 and new regulation 9 of annex V on placards, garbage management plans and garbage record-keeping (adopted by resolution MEPC.65(37) on 14 September 1995), which entered into force effective 1 July 1997 for new ships and will apply as of 1 July 1998 for ships built before 1 July 1997, now makes it mandatory for every ship of 400 gross tonnage and above, and every ship certified to carry 15 persons or more, to carry a garbage management plan. Governments are urged by IMO to develop the management plans in accordance with the Guidelines for the Development of Garbage Management Plans adopted by the Marine Environment Protection Committee on 10 July 1996 (resolution MEPC.71(38)).

309. Surveys in the United States have shown that at least 50 per cent of pollution from garbage in the territorial sea is generated by recreational boating and a further 31 per cent by fishing boats.[47] Pollution of the marine environment from garbage is a particular problem in the Wider Caribbean Region and can seriously threaten tourism, the largest and most important industry in the region. A recent regional Conference on the Prevention of Pollution from Small Ships, held in Trinidad from 25 to 27 November 1996, adopted a Draft Code of Conduct for the Prevention of Pollution from Small Ships in Marinas and Anchorages in the Caribbean Region, which provides a set of guidelines for

Administrations and small ships used for leisure purposes in marinas and anchorages (see MEPC 39/INF.4).

(c) Air pollution from ships

310. Ships emit substances into the air as a result of a number of operational functions: burning of fuels in engines; incineration of garbage at sea; use of chlorofluorocarbons and halons in refrigeration equipment and firefighting equipment; and the discharge of volatile fractions of substances carried by ships during transport, loading, unloading and tank cleaning. Pollutants from these sources may enter and affect the marine environment via the atmosphere.

311. Air pollution from ships is now regulated by a new annex VI to MARPOL 73/78. The text which was prepared by the Marine Environment Protection Committee at its thirty-ninth session (MP/CONF.3/3) covers ozone-depleting substances, volatile organic compounds and shipboard incineration.

312. The text reflects the provisions of UNCLOS relating to pollution from vessels, in particular articles 211, 217, 218 and 220, and section VII of Part XII but does not take into account articles 212 and 222 dealing with pollution from or through the atmosphere.

(d) Reception facilities

313. While MARPOL 73/78 greatly limits the discharge of wastes into the sea and in some special areas bans it completely, the provision of adequate reception facilities is crucial to the successful implementation of the Convention. This is required by four of the five annexes (annex III is the exception) and the intention is that ships will be able to retain their wastes on board until they reach port. The new annex VI also requires such facilities. The requirements of a special area designation can only become effective when adequate reception facilities are provided for ships. The proposal to designate the north-west European waters as a Special Area under annex I states that waste reception facilities for annex I discharges are adequate; but this has been questioned by the International Association of Independent Tanker Owners (INTERTANKO) (see MEPC 40/7/1).

314. In the Wider Caribbean Region, which was designated a Special Area under annex V in 1993, only 16 of the 29 countries in the region have ratified the mandatory annexes of MARPOL and 14 have ratified annex V. The reluctance to ratify is directly attributable to the requirements under MARPOL 73/78 for countries to provide adequate port reception facilities for receiving ship-generated waste, and the need to implement national legislation to enable enforcement of the Convention. To help developing countries of the region, IMO has launched a three-year technical assistance project on the Wider Caribbean Initiative on Ship-generated Wastes to bring into effect the Special Area status under annex V. The project is executed by IMO on behalf of the World Bank/Global Environment Facility (GEF) and will end in August 1997 (MEPC 39/INF.14).

315. The IMO Working Group on Ship/Port Interface decided that the development of a uniform global funding system for the establishment and operation of

reception facilities was not feasible, and therefore decided to provide information on currently available national financing systems or on regional initiatives to establish such systems (see FAL 25/12/2). This information will give ports the opportunity to choose the one best suited to their local conditions (see FAL 26/12, paras. 2.1-2.10).

(e) Enforcement

316. The proposal by the north-west European States and the European Commission notes that neither the implementation of aerial surveillance patrol carried out by the North Sea States nor of the upper thresholds for legal discharges defined by MARPOL 73/78 have had any effect on the high level of oil pollution experienced in the area west of the Kattegat-Skagerrak (MEPC 39/INF.8, para. 5.3). Illegal discharges are targeted vigorously through the Bonn Agreement and national enforcement (MEPC 39/9/1, para. 10; see also A/51/645, para. 108). Recent proposals to IMO from parties to the Bonn Agreement to improve enforcement include the fitting of transponders i.e. device for receiving radio signals, and other means for better identification of ships and polluters at night, during bad visibility or otherwise (MEPC 39/12); discontinuation as in the case of the Bonn Agreement of the inclusion of legal sanctions for illegal discharges into the sea in insurance coverage (MEPC 39/12/1, LEG 75/10/1); and the tagging of liquid cargo and bunkers to identify the ship which is responsible for an illegal discharge (MEPC 39/12/5, MEPC 39/INF.21, MEPC 40/18/2 and MEPC 40/INF.8). No action was taken in the Marine Environment Protection Committee regarding the proposal for the fitting of transponders since the development of a shipborne automatic identification system is under consideration in the Subcommittee on the Safety of Navigation.

(f) Pollution incidents

317. The provisions of UNCLOS governing notification of pollution incidents and contingency plans are contained in articles 198 to 199 and 211, paragraph 7; articles 202 and 203 governing technical assistance are also relevant in this context. The right of the coastal State to take and enforce measures beyond the territorial sea to protect its coastline or related interests is recognized in article 211, paragraph 1, and other international agreements.

318. The International Convention on Oil Pollution Preparedness and Response and Cooperation (OPRC) requires the parties to inform all concerned States of an oil pollution incident and provides a global framework for international cooperation in combating major oil pollution incidents or threats to marine pollution. Provisions concerning reports on incidents involving harmful substances are also given in MARPOL 73/78 and its Protocol I. The 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, and the 1973 Protocol which extends the regime of the Convention to substances other than oil, set out the measures which the coastal States can take to prevent, mitigate or eliminate danger to its coastline or related interests following upon a maritime casualty.

319. Recent amendments to these instruments include amendments to Protocol I of MARPOL 73/78 (resolution MEPC.68(38) of 10 July 1996), which will enter into force on 1 January 1998; and amendments to the list of substances annexed to the

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1973 Protocol to the Intervention Convention (resolution MEPC.72(38) of 10 July 1996).

320. Recent developments regarding the OPRC Convention include the preparation by the Marine Environment Protection Committee of two draft resolutions for the consideration and adoption by the IMO Assembly at its twentieth session in November 1997: one on the adoption of Guidelines for Facilitation of Response to an Oil Pollution Incident Pursuant to Article 7 and the Annex of the OPRC Convention (MEPC 40/14/4/1); and another resolution on amendments to the INF Code to introduce a requirement for the shipboard emergency plan and for notification of an incident, and on the adoption of Guidelines for Developing Shipboard Emergency Plans for Ships Carrying Materials Subject to the INF Code. The Committee also agreed that work on preparing a draft instrument extending the OPRC Convention to hazardous and noxious substances should be completed in the 1998-1999 biennium with a view to its adoption at a conference to be convened early in 2000 (MEPC 39/13, paras. 10.10-10.11).

321. It may be noted that, in the programme for the further implementation of Agenda 21, the General Assembly stated that it was necessary to strengthen the implementation of existing international and regional agreements of marine pollution, with a view in particular to ensuring better contingency planning and response (A/S-19/29, annex, para. 36(b)).

322. A draft resolution concerning a Mediterranean regional strategy on prevention of pollution of the marine environment by ships, consequential amendments to the Protocol to the Barcelona Convention concerning cooperation in combating pollution of the Mediterranean Sea by oil and other harmful substances in cases of emergency, and draft amendments to the objectives and functions of the Regional Marine Pollution Emergency Response Centre for the Mediterranean (REMPEC) have been prepared (see UNEP (OCA)/MED WG.129/5, annexed to MEPC 40/INF.17) for further consideration, and subsequent adoption at a meeting of Contracting Parties to the Convention on the Protection of the Mediterranean Sea against Pollution in 1999.

(g) Harmful aquatic organisms in ballast water

323. Increasing concern has been expressed in IMO and in other forums, e.g., the Conference of Parties to the Convention on Biological Diversity, over the introduction of unwanted aquatic organisms and pathogens through the discharge of ships' ballast water. In many cases the organisms have been able to flourish in their new surroundings, often to the detriment of indigenous marine life and even human health.

324. The exchange of ballast water in open seas or deep ocean areas, which was recommended in 1993 by the IMO Assembly in its resolution A.774(18), is broadly accepted as the most cost-effective and environmentally acceptable prevention strategy currently available. It has, however, raised some concerns regarding the safety of the ship and its crew, especially in bad weather situations. In view of the fact that ballast water exchange in open seas is required by certain port States, it was considered necessary to provide guidance urgently on the safety aspects of such operations. Such guidance has now been prepared and the draft Guidance on Safety Aspects of Ballast Water Exchange at Sea (MEPC 39/13,

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annex 3) will be included in a draft Assembly resolution on guidelines for the control and management of ships' ballast water to minimize the transfer of harmful aquatic organisms and pathogens, for consideration and adoption at the twentieth session of the Assembly (the draft text prepared by the Working Group for consideration at the fortieth session of the Committee is contained in MEPC 40/10). Once adopted, the new resolution will replace resolution A.774(18).

325. Several States have taken unilateral action by adopting legally binding provisions for local, regional or national application with a view to minimizing the risk of introducing unwanted aquatic organisms and pathogens through ships entering their ports. The Guidelines which are annexed to the draft Assembly resolution referred to above are intended to address the need for a uniform approach to the development of management and control measures at the national level, until such time as legally binding and globally applicable provisions for ballast water management are in place.

5. Pollution from the atmosphere

326. The General Assembly in the programme for the further implementation of Agenda 21, pointed out that ensuring that the global climate and atmosphere is not further damaged with irreversible consequences for future generations requires political will and concerted efforts by the international community in accordance with the principles enshrined in the United Nations Framework Convention on Climate Change. It further noted that despite the adoption of that Convention, the emission and the concentration of greenhouse gases continue to rise, even as scientific evidence assembled by the Intergovernmental Panel on Climate Change (IPCC) and other relevant bodies continues to diminish the uncertainties and points ever more strongly to the severe risk of global climate change. As already described in last year's sea report (A/51/645, paras. 286-290), IPCC had found that humanity's emissions of greenhouse gases were likely to cause rapid climate change and that, according to climate model predictions, the global temperature would rise by about 1° to 3.5° C by 2100. If current trends continue the mean sea level is expected to rise by some 15 cm to 95 cm by 2100, causing flooding and other damage. Based on current trends, the growth in emissions of carbon dioxide and other greenhouse gases is expected to result in the equivalent of a doubling of preindustrial CO_2 concentrations in the atmosphere by 2030. It has been recognized that, inter alia, small island countries and countries with low-lying coastal areas are particularly vulnerable to the adverse effects of climate change. Stabilizing global CO_2 emissions at their current levels would postpone CO_2 doubling to 2100.

327. In the programme for the further implementation of Agenda 21, the General Assembly emphasizes that the ultimate goal which all countries share is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. At the nineteenth special session, countries reviewed the state of preparations for the third session of the Conference of Parties of the Framework Convention on Climate Change to be held at Kyoto in December 1997. There was a widespread but not universal agreement that it would be necessary to consider legally binding, meaningful, realistic and equitable targets resulting in

significant reductions in greenhouse gas emissions within specified time frames. The negotiating text for a possible protocol or another instrument was further discussed at the meeting of the subsidiary bodies to the Framework Convention held at Bonn in July/August 1997.

328. One of the proposals aimed at reducing carbon dioxide accumulation in the atmosphere and providing a remediation option for global warming is to store fossil fuel CO_2 in the deep ocean. A document, on the "Storage of CO_2 at deep sea", dealing largely with scientific and technical matters, was introduced at the twenty-seventh session of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), held at Nairobi from 14 to 18 April 1997.

329. Legal issues were also raised in the document, particularly with regard to the other main alternative of CO_2 injection by pipelines running from the shore across the continental shelf, which is solid (or liquid) CO_2 disposal from vessels and platforms. The report noted that this would be contrary to the 1972 London Dumping Convention and its resolution of 1993 which prohibit dumping of industrial wastes (defined as wastes generated by manufacturing or processing operations).[47]

330. In addition, the final report of the twelfth session of the Commission for Marine Meteorology (World Meteorological Organization), held at Havana, in March 1997, noted that the ocean monitoring requirement for the global climate programmes relied to a very high degree on data (marine meteorological and surface oceanographic observations) provided by voluntary observing ships. The Commission also stressed the indispensable nature of routine marine meteorological and oceanographic observations, including from the exclusive economic zone and territorial sea, to the provision of services in support of the safety of life and property at sea. Those observations are freely exchanged among and are of general benefit to all countries. The Commission adopted recommendations with a view to maintaining, coordinating and improving marine observing systems.[48]

F. Review of regional seas programmes

General overview

331. The UNEP Governing Council at its eighteenth session launched the Global Environment Outlook process, a region-based, participatory, global assessment project addressing current and emerging environmental issues within the socio-economic development context. Elaborated with a global network of collaborating centres, international working groups and region-based consultative processes, the project provides a policy-oriented biennial report series to keep under review the state of the world's environment and identify major current concerns, trends and emerging issues, their causes and impacts and possible international policy options and actions to address them.

Regional seas programme

332. UNEP's regional seas programme is based on a regional approach in relation to the management of marine and coastal resources and control of marine pollution, through the development of action plans that include legal and managements aspects. The programme covers 13 regional sea areas with action plans which are operational in each of these regions. Nine out of the 13 regions have Regional Seas Conventions and related Protocols in force. A new action plan is under development to address environmental issues in the South-west Atlantic. In its decision 19/14 E of 7 February 1997, the UNEP Governing Council established a new regional seas programme covering the East Central Pacific region. The Council requested the Executive Director of UNEP to assist the Governments of the region to negotiate an agreement to develop and implement a plan of action for the region.

333. Based on the information provided by UNEP and the secretariats of some of these action plans, relevant developments are as follows:

Mediterranean Action Plan

334. The Mediterranean Action Plan (MAP) was adopted in 1975 by the countries of the Mediterranean Region and the European Economic Community. The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) was adopted one year later, in 1976, and amended on 10 June 1995. Six Protocols have also been adopted, dealing with: dumping from ships and aircraft; oil and other harmful substances in cases of emergency; land-based sources of pollution; specially protected areas; pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil; and prevention of pollution by transboundary movements of hazardous wastes and their disposal, which is the latest protocol adopted by the Contracting Parties at the Conference of Plenipotentiaries held at Izmir, Turkey, from 30 September to 1 October 1996.

335. In its article 5, the Protocol deals with general obligations, the duty for the parties to take appropriate measures to prevent, abate and eliminate pollution caused by transboundary movements and disposal of hazardous wastes and to reduce to a minimum, and where possible eliminate, the production of such wastes. The article also asserts the right for the parties to ban, acting individually or collectively, the import of hazardous wastes and imposes upon potential exporting parties the obligation to respect and enforce such a decision. Article 5 further imposes upon the parties the duty to adopt all measures within the area under their jurisdiction and to prohibit the export and transit of hazardous wastes to developing countries; in addition, parties that are not States members of the European Community (excluding Monaco) are required to prohibit all imports and transit of hazardous wastes. The Protocol enters into force, in accordance with article 17, on the thirtieth day following the deposit of a minimum of six instruments of ratification, acceptance, approval or accession by States parties to the Barcelona Convention. The Protocol is also open to the European Community and any similar regional economic grouping of which at least one member is a coastal State of the Protocol area and which exercises competence in the field covered by the Protocol.

Kuwait Action Plan (Persian Gulf)

336. The Regional Office for the Protection of the Marine Environment (ROPME), acting as the secretariat for the Kuwait Regional Seas Programme, has requested and has been provided assistance from UNEP to develop a protocol on the transboundary movement of hazardous wastes and their disposal, under the Kuwait Convention. A meeting of the Legal Drafting Group has been scheduled for October 1997 to finalize the draft Protocol.

South-east Pacific Action Plan - South Pacific Permanent Commission

337. The Permanent Commission for the South Pacific (CPPS) serves as the secretariat for the 1981 action plan for the region. Besides convening the regional intergovernmental workshop, sponsored by UNEP, to further implement the Global Programme of Action, CPPS has also undertaken several activities and prepared studies during the period under review in relation to integrated coastal zone management, marine biodiversity, climate change and assessment of marine pollution in the South-east Pacific region.

338. The two main undertakings for the coming year will be the organization of the Third International Seminar on research and monitoring of marine pollution in the region and an international seminar on radioactive pollution in the South Pacific, as a contribution to the International Year of the Ocean.

339. Concerning other activities of the SPPC, the Protocol on the Programme for the Regional Study of El Niño (ERFEN), entered into force in 1997. A major development that the region has started to experience is the El Niño phenomenon, which disrupts the ocean-atmosphere system in the eastern tropical Pacific and has important consequences for weather around the globe. Among these consequences are increased rainfall causing devastating floods in some areas and severe drought in others.

340. The ERFEN Scientific Committee is scheduled to hold its 12th meeting at Bogotá in October 1997 and is expected to recommend the adoption of monitoring measures and other contingency plans to mitigate the socio-economic effects expected to be caused by El Niño.

South Pacific Action Plan - South Pacific Regional Environment Programme

341. The South Pacific Regional Environment Programme (SPREP) serves as the secretariat for the action plan for the region. Regional seas functions are still part of its lead core activities although it has developed beyond its original format. This is reflected in the various programmes set out in its action plan and the provisions of the Nouméa Convention. Following the SPREP Agreement adopted in 1993, it has recently concentrated on issues of special importance for Pacific island countries, among which is the elaboration of a strategic Action Programme on International Waters of the region.

342. A SPREP/UNEP project, known as the Regional Marine Pollution Monitoring and Research Project (SPREP/POL), has prepared an inventory of sources of land-based pollution in the region. Experts from academic and other institutions of the countries of the region, including the University of the South Pacific, have

undertaken specific studies in several South Pacific nations, culminating in a major regional report on land-based sources of pollution.

343. Comprehensive reviews of national legislation have been undertaken in most of the South Pacific countries to provide information on the relevance of existing statutes concerning protection of the environment. In this regard, it should be noted that in many Pacific States environmental legislation is poorly developed or non-existent, and responsibility for managing the environment is often dispersed among various government agencies, with limited coordination between them. The reviews have assessed existing laws, recommended amendments and, in some cases, resulted in the development and adoption of new legislation. Among its other activities, SPREP has collaborated with UNEP in drafting a Marine Conservation Areas Act for the Government of Tuvalu.

Eastern African Action Plan

344. The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention) entered into force on 30 May 1996. The first meeting of the Conference of the Parties to the Convention was held at Mahé, Seychelles, from 17 to 18 March 1997. Among its decisions was an invitation to South Africa to become a party to the Convention. Landlocked States of the Eastern African region were also invited to join the Convention to make it possible to assess the impacts of land-based activities on the marine environment.

345. Furthermore, the Conference of the Parties decided to establish an Ad Hoc Technical and Legal Working Group to consider the feasibility and modalities of adapting the text of the Nairobi Convention and its related Protocols to take into account the relevant environmental changes and the latest developments in international environmental law and agreements, bearing in mind that it took the Convention 11 years from the date of its adoption to enter into force. The review of the Convention will include the ways of implementing, at the regional level, the provisions of UNCLOS and other international instruments. The Ad Hoc Group will also formulate and adopt guidelines, standards or criteria concerning the identification, selection, establishment and management of protected areas under the Protocol concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region.

346. On 12 August 1997, the Regional Coordinating Unit of the Eastern African Regional Seas Programme was inaugurated on St. Anne Island, Seychelles. In addition to regional projects, the Unit also aims to promote international initiatives for the protection of coral reefs and the protection of the marine environment from land-based activities.

Other regions

Arctic

347. On 19 September 1996, at Ottawa, Canada, eight Arctic States (Canada, Denmark, Finland, Iceland, Norway, Russian Federation, Sweden and United States) signed the Declaration on the Establishment of the Arctic Council. The Council, consisting of the eight member nations, will also have Permanent Participants

representing the majority of indigenous peoples in the region, and is open to the participation of non-Arctic States and intergovernmental organizations as observers.

348. Created as an intergovernmental forum to promote cooperation, coordination and interaction among the Arctic States, a primary focus of the Council will be to oversee and coordinate the programmes established under the Arctic Environmental Protection Strategy adopted in 1991 to strengthen the environmental protection of the Arctic through national activities and policies among the Arctic States. These programmes are the Arctic Monitoring and Assessment Programme, the Conservation of Arctic Flora and Fauna, the Protection of the Arctic Marine Environment and the Emergency Prevention, Preparedness and Response. Recently, a report of the Arctic Monitoring and Assessment Programme (based on data collected over the past six years through the research of 160 scientists) has highlighted as the main priorities pollution caused by contaminants resulting from the use of persistent organic pesticides, heavy metals and radioactivity and has stressed the need for international action. In order to reduce persistent organic pesticides and heavy metals in the region, two protocols are being negotiated under the auspices of UNEP, with the cooperation of the Economic Commission for Europe.

349. The Arctic Council will also promote sustainable development by building on the work of the Sustainable Development and Utilization Initiative. The focus will be to encourage and assist existing activities and to develop new projects in order to improve the economic, environmental and social conditions in the Arctic.

G. Integrated coastal zone management

350. Since its inception over 25 years ago, a major transformation is being experienced in formulating and carrying out plans for integrated coastal zone management (ICZM). ICZM is entering a new phase in the implementation of programmes worldwide and these changes are based on the following factors.

351. There is a rapid growth in the number of ICZM efforts worldwide. In 1993, 142 activities in this area were identified in 57 coastal States, while a recent report in 1997 has identified at least 180 ICZM programmes, projects or feasibility studies being undertaken in 90 coastal States. The majority of these initiatives, especially in the last 10 years, have occurred in developing countries. At the same time, the concept and practice of ICZM has been expanded and/or adapted around the world and these have included programmes such as the ICZM activities in the Mediterranean region.

352. The more recent expansion of the application of the concept of ICZM has followed two major trends. The first reflects the impact of ICZM on the international regulatory environment through a number of recently adopted treaties and policy instruments (e.g. Convention on Biological Diversity (1993) and the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (1995)) as well as an extensive range of resolutions, guidelines and codes. The mandate emanating from the Convention on Biological Diversity encourages the use of integrated marine and coastal management as the

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most appropriate framework for promoting conservation and sustainable use, and encourages the Contracting Parties to make the appropriate legal and administrative arrangements for the development of integrated marine and coastal area management plans.

353. The Global Programme of Action is also illustrative of an international instrument that encourages the use of ICZM as one of the major tools for coordinating programmes aimed at safeguarding coastal ecosystems by preventing marine degradation from land-based activities. In this connection, the programme for the further implementation of Agenda 21 adopted by the General Assembly at its nineteenth special session calls for the strengthening of institutional links between the relevant intergovernmental mechanisms involved in the development and implementation of ICZM.

354. The second trend is reflected in a renewed perspective of coastal areas to be viewed as part of an expanded management context which focuses on increased land-water integration, encompassing the coastal watershed, the coastal-estuarine and other marine areas, thus creating a linked environment. From a management point of view, the realization of this new dimension results in more comprehensive and better coordinated coastal/ocean management efforts.

355. Another important reality is that ICZM has become an integral part of the international donors' strategies. For example, one of the six elements of the core strategy of the Inter-American Development Bank (IDB) is to use integrated coastal management as a framework to enhance the sustainability of the Bank-financed operations in marine fisheries management, aquaculture, port development and rehabilitation, pollution control and coastal tourism. In the case of the World Bank, ICZM has grown into a formally recognized programme which currently targets three main areas of intervention: awareness creation and training, investments and partnerships. The investment portfolio of the Bank includes about US$320 million for activities that directly contribute to ICZM objectives. The United Nations Development Programme (UNDP) has also focused on ICZM through the Strategic Initiative for Coastal and Ocean Management, which aims at enhancing the capabilities of existing ocean and coastal area management projects.

356. Major issues under discussion among theorists as well as practitioners of ICZM include, the need: (a) to evaluate systematically the effectiveness of existing programmes; (b) to increase public involvement and the support of local communities; (c) to increase capacity-building efforts that focus on the development of local knowledge, skills and attitudes; (d) to incorporate into planning and decision-making formal types of assessment (e.g. social impact assessment, risk assessment); and (e) to make ICZM programmes and projects sustainable by having the full support of government and linkages with the private sector as well as integrating ICZM into the broader framework of development planning.

VI. MARINE TECHNOLOGY

357. With the establishment of the pre-eminence of the offshore oil and gas industry in the non-living marine resource sector, advances in marine technology and research and development in marine technology have been related predominantly to that industry. In the year of the fiftieth anniversary of the industry, such predominance has been more marked than ever.

358. With regard to oil and gas production facilities, a remarkable growth in demand over the past few years has been witnessed by the floating production, storage and offloading (FPSO) facilities, mainly because of their versatility, mobility and relative low costs. The increased need for track development and deepwater production contributed to the recent surge in demand although FPSOs have been in use since the mid-1970s. Currently, a total of 137 FPSOs are operating or in some stage of development worldwide, according to a survey by the Offshore.[50] The world's largest FPSO barge, with a storage capacity of 1.4 million barrels, will be operational in offshore Australia in 1998.

359. The remarkable growth in the use of FPSOs and the likely continuation of such growth as a result of the industry's move to deeper waters and marginal fields raise interesting regulatory issues. It appears that there are serious uncertainties regarding the application of MARPOL annex I provisions to FPSOs and also to floating storage units (FSUs). Annex I does not directly address the unique characteristics and functions of FPSOs and FSUs, and leaves many questions unanswered as to the nature and extent of their regulation. There is no definition of FPSOs and FSUs in annex I. There is thus a need for the examination of the full implications of applying annex I of MARPOL to FPSOs (and also to FSUs), providing a legal and technical analysis of the status of FPSOs (and FSUs) in the context of MARPOL, specifically identifying which provisions of annex I apply to FPSOs (and FSUs), as well as any conflicting provisions or existing gaps in regulation.[51]

360. Seismic survey vessels of a new design entered operation in mid-1995. This delta-shaped vessel known as Ramform offers superior stability and deckload capacity. The vessel's triangular shape provides protection from the fire since it creates a temporary safe refuge on the vessel upwind of any fire and smoke. Ramform vessels currently hold records for the first ever 8-streamer tow, the first ever 10-streamer tow and the highest monthly production of four-dimensional seismic data anywhere. The operational advantages of the Ramform vessel, heretofore employed purely for seismic purposes and possible cost advantages under certain conditions led to the first commissioning this year of such a vessel as a floating production vessel.

361. The newest generation of mobile offshore drilling unit (MODU) is the spar, named after its spar-shaped structure, which features a deep extend hull far below the water line. The spar can be converted to a producing unit, employing either tendons to tension the unit vertically to the seabed or a spread mooring system to position it. The world's first production spar was installed in the mid-1996 about 90 miles offshore Alabama at a depth of about 1,930 feet in the Gulf of Mexico. It is scheduled to start production in 1997. According to experts, spars could be the first units to drill past the 10,000-feet water depth contour.

362. Production of gas from areas icebound for about 10 months a year and only accessible with icebreakers poses serious problems which cannot be handled by the usual configuration of arctic rigs and concrete platforms. Russia's Kara Sea, with at least three supergiant gas fields which may very well replace both the Gulf of Mexico and the North Sea as the world's primary source of gas reserves in the first half of the twenty-first century, is such an area. Recently a new technology has been proposed that may make gas from this vast reserve available to market. The technology involves submarine production and a fleet of submarine liquefied natural gas tankers to traverse the Arctic beneath the ice to deliver the gas to the Far East. The first voyage of liquid natural gas under the Arctic ice is expected to occur in 2004.[52]

363. The move towards ultradeep waters and remote and difficult areas gives rise to the need for related technologies. Research and development are thus apace in a number of related operational areas: mooring of MODUs; riserless drilling that would eliminate the operational uncertainties of a two-mile long, large-diameter riser; reduction or elimination of paraffin blockage in pipeline; seabed oil processing, etc.

364. In response to the significant liability issues and high costs associated with the removal of offshore hydrocarbon platforms, a United States firm is researching a new approach that would involve developing a mariculture facility around the platform as the central structure. Near-shore mariculture facilities are not unique; such facilities exist in Norwegian fjords, Scottish lochs, Canadian estuaries and many near-shore areas of Indonesia and Malaysia. The uniqueness of this new approach is the utilization of a decommissioned producing platform as well as the fact that it will be truly offshore, unprotected from storms and high waves.

365. In submarine cable laying, methods have to be found to minimize substantial external risk to which the cable systems are exposed as an increasing number of high-capacity undersea fibre-optic cable systems are being installed in shallow environments. New cable installation projects that are representative of the telecommunication industry trend towards a greater level of protection for these lightweight valuable cable systems include deep burial and rock trenching in hazardous shallower waters and then letting the cables emerge from their protected buried or trenched positions to continue seaward (where hazards are minimal) as surface-laid cables.

366. For ocean thermal energy conversion (OTEC), while technology has been proved operational, the economics are still prohibitive. New approaches being investigated for reduction of costs include development of a multi-product OTEC plant combining it with a revenue-producing marine park, for example; and application of FPSOs to house-floating OTEC systems.

367. In the ever increasing quest for faster ocean transport, one new idea is of a superliner, a model version of which has been successfully tested by Japan. It is a high-speed cargo ship that will have a cruising speed of 50 knots, a capacity of 1,000 tons, a range of 500 nautical miles and seaworthiness that will enable it to navigate in rough seas up to state-6.

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368. With regard to utilization of ocean space, novel ideas for marine technology include a proposal to build an underwater beltway for Japan's Osaka Bay, linking 10 cities and other key areas along the bay via an underwater tunnel system for transportation of people and goods and supportive utility systems. The $42 billion project not only is expected to improve transportation access around Osaka Bay, it would also include means to restore the marine environment of the bay. Plans call for the tunnel system to be used to improve sea-water quality through improved circulation and aeration, creation of marine wetlands and habitats and, eventually, support for the development of marine cities to accommodate population and economic activities.

VII. PEACE AND SECURITY

A. Settlement of disputes

369. A number of cases concerning disputes over maritime areas are still pending before the International Court of Justice.[53] These cases include the territorial dispute between Qatar and Bahrain, in which the Court has fixed 31 December 1997 as the time limit for the filing by each of the parties of a Counter-Memorial on the merits. Other cases include the ongoing land and maritime boundary question between Cameroon and Nigeria; the matter relating to fisheries jurisdiction between Spain and Canada.

B. Regional cooperation

Russian-Ukrainian agreements on Black Sea fleet

370. The Prime Ministers of the Russian Federation and of the Ukraine signed three agreements at Kiev on 28 May 1997 regarding the Black Sea fleet: the Agreement on the status and conditions of deployment of the Black Sea fleet of the Russian Federation on the territory of Ukraine, the Agreement on the criteria for the division of the Black Sea fleet; and the Agreement on mutual payments in relation to the division of the Black Sea fleet and the presence of the Black Sea fleet of the Russian Federation on the territory of Ukraine.

371. The conclusion of the Agreements resolved the problem of ownership of the former Soviet Black Sea fleet and over the fleet's use of Sevastopol as a base that had affected Russian-Ukrainian cooperation for several years. These and other agreements made it possible for the Presidents of the two countries to sign a comprehensive Treaty on Friendship, Cooperation and Partnership which, *inter alia*, also refers to cooperation in the Black Sea region in article 29: "The High Contracting Parties, as Black Sea States, are prepared to continue to develop all-round cooperation in order to save and preserve the natural environment of the Azov-Black Sea basin, conducting marine and climatological research, utilizing the recreational potential and natural resources of the Black Sea and the Sea of Azov, developing navigation and operating sea routes, ports and installations." (see A/52/174, annex I).

372. The Presidents have also signed a Russian-Ukrainian declaration and a joint statement on Sevastopol and the Black Sea fleet which emphasized that the

agreements will help strengthen security and stability in the region, that the Russian Black Sea fleet and the Ukrainian navy gained broad opportunities for further strengthening cooperation between the two States in the naval sphere on the Black Sea, and that they will cooperate in safeguarding the southern borders of the two countries (ibid., annexes II and III).

373. According to the agreements the Russian Federation will lease from Ukraine several of Sevastopol's bays and the necessary land-based infrastructure for a 20-year period and will also have use of other facilities in the Crimea. The deployment of the Russian Black Sea fleet on Ukrainian territory will be implemented by way of leasing both the land and the infrastructure on that land. The lease payments will be credited against Ukraine's gas and oil debt to the Russian Federation. The former Soviet Black Sea fleet is to be divided on a 50/50 basis with Ukraine ceding to the Russian Federation approximately half of its share as part of the debt payment. The Ukrainian navy will be based together with Russian Black Sea fleet ships in Sevastopol, as well as at other Ukrainian ports.[54]

C. Crimes at sea

1. Piracy and armed robbery

374. The issue of piracy and armed robbery against ships continued to be a major source of concern. The IMO Maritime Safety Committee at its sixty-seventh session noted that the number of incidents of piracy and armed robbery against ships had risen to 152 during the first 11 months of 1996, as compared to 138 during 1995, representing an increase of 25 per cent. The Committee noted that the areas most affected by pirates and armed robbers continued to be the same, i.e., the South China Sea, South America and the Indian Ocean, which meant that, apart from a temporary decline in the strait of Malacca in 1993 and the South China Sea in 1995, the phenomenon appeared to have an endemic character.

375. At its seventy-eighth session, in June 1997, the Committee requested the Secretary-General of IMO to enter into consultations with the Governments most affected with a view to organizing missions to the countries concerned in an additional effort to sensitize them to the need to prevent and suppress acts of piracy and armed robbery against ships. The Committee invited all such Governments and the shipping industry to intensify their efforts to eliminate unlawful activities in all affected areas. In particular, it urged Governments that received requests to provide information on incidents alleged to have taken place in waters under their jurisdiction to provide information on them as well as on the action they had taken to prevent and suppress future acts of piracy and armed robbery in those waters.

376. The Committee agreed that all future reports on piracy and armed robbery received by the IMO secretariat should be circulated. In turn, the secretariat invited member Governments to investigate acts of piracy and armed robbery against ships reported to have occurred in the waters under their jurisdiction and to report to IMO on their findings and on the remedial action taken.

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2. Smuggling of aliens

377. In its resolution 51/62 of 12 December 1996, entitled "Measures for prevention of the smuggling of aliens", the General Assembly requested the Commission on Crime Prevention and Criminal Justice to consider giving attention to the question of the smuggling of aliens in order to encourage international cooperation to deal with the problem.

378. At its sixth session, held in April/May 1997,[55] the Commission reviewed information submitted by Members States on measures taken to combat the smuggling of aliens. It was noted that crimes against aliens were often committed by immigration authorities, and it was recommended that States take steps to prevent and sanction such abuse of power.

379. IMO, reporting to the Commission, raised the issues dealing with the prevention and suppression of unsafe practices associated with alien smuggling, including the question of stowaways. In a note published in January 1997 on the prevention of unlawful acts on or against ships, the Secretary-General of IMO expressed concern about reported incidents of alien smuggling by ship, causing loss of life, and invited the Facilitation Committee of IMO to consider taking appropriate action to prevent the recurrence of such incidents. On the issue of stowaways, a working group was established under Guidelines on the Allocation of Responsibilities to Seek the Successful Resolution of Stowaway Cases, adopted by the Facilitation Committee in January 1996. On the issue of migrant trafficking, IMO continued to organize regional and international seminars with a view to establishing coordinated government approaches to legislation and policy.

VIII. COOPERATIVE MECHANISMS, CAPACITY-BUILDING AND INFORMATION

A. Cooperative mechanisms

1. Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)

380. Constituted in 1969 under an inter-agency Memorandum of Agreement, GESAMP is an expert scientific advisory body within and supported by the United Nations system, namely by: the United Nations, through its Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs; UNEP; UNESCO/IOC; FAO; WHO; WMO; IMO and IAEA. The annual report of GESAMP and the reports of its working groups represent substantial contributions to the technical work of the co-sponsoring agencies under their respective mandates and programmes of work, including in relation to the implementation of Agenda 21.

381. At its twenty-seventh session, held at Nairobi, from 14 to 18 April 1997 (GESAMP Reports and Studies No. 63), GESAMP addressed a number of subjects, including: evaluation of the hazards of harmful substances carried by ships; environmental impacts of coastal aquaculture; storage of carbon dioxide in the deep sea; review of the state of the marine environment;[56] and significant matters regarding degradation of the marine environment.

382. The Division for Ocean Affairs and the Law of the Sea continues to support, albeit under budgetary constraints, the work of GESAMP in relation to the Division's mandate and programme of work and, like the other co-sponsoring agencies, provides the United Nations technical secretary and supports the participation of experts in connection with GESAMP meetings (plenary and working groups).

383. Although established as an expert advisory body within the United Nations system, GESAMP performs an important role in facilitating cooperation and coordination, through interaction among GESAMP technical secretaries designated by the sponsors from their respective secretariats.

2. Subcommittee on Oceans and Coastal Areas of the Administrative Committee on Coordination

384. Established in 1993 on the recommendation of the Inter-Agency Committee on Sustainable Development (A/48/527, paras. 79-80), the fifth session of the Subcommittee was held from 7 to 10 January 1997 in Washington, D.C., and was hosted by the World Bank. United Nations participation included the Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs, the Department for Policy Coordination and Sustainable Development and UNDP. Also attending were representatives of FAO, UNESCO and IOC, the World Bank, WMO, IMO, and IAEA. Under its terms of reference, the Subcommittee drew to the attention of the Inter-Agency Committee on Sustainable Development a number of matters, including:

(a) Its confirmation that the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities would constitute the cooperative programme framework for Chapter 17, programme areas A and B, of Agenda 21.[57] The Subcommittee also reiterated its interest in being designated the inter-agency steering committee for the Programme of Action, including functions associated with the clearing-house mechanism, if so invited by the Governing Council of UNEP;[58]

(b) Its review of the decision by the General Assembly in paragraphs 14 and 16 of its resolution 51/34 to undertake an annual review and evaluation of developments related to ocean affairs and the law of the sea. The Subcommittee welcomed the decision contained in paragraph 17 of the same resolution to include an agenda item entitled "Oceans and the law of the sea" at the fifty-second session of the General Assembly;

(c) Its future workplan which would include as priority items: review of the progress made in implementation of the Global Programme of Action; planning for celebration of the International Year of the Ocean, 1998; and progress in producing a United Nations ocean atlas. Taking into account its future workplan, the Subcommittee agreed to hold its sixth session during the week of 19 January 1998, preferably at Lisbon in view of the launching of the International Year of the Ocean, 1998, and Expo '98.

385. At an informal meeting of the Subcommittee (Stockholm, 6-8 August 1997) consultations in the above-mentioned areas were advanced in preparation for the formal meeting in 1998.

386. The concise report of the Secretary-General on the implementation of chapter 17 of Agenda 21 (E/CN.17/1997/2/Add.16) was submitted to the Commission on Sustainable Development at its fifth session (7-25 April 1997)[59] as the preparatory body, under the auspices of the Economic and Social Council, for the nineteenth special session of the General Assembly in June 1997 on an overall review and appraisal of the implementation of Agenda 21 (see paras. 184-189).[60]

3. Aquatic Sciences and Fisheries Abstracts

387. The Aquatic Sciences and Fisheries Abstracts (ASFA) is an inter-agency and international bibliographical information service established in 1970. The United Nations, through the Division for Ocean Affairs and the Law of the Sea, is a co-sponsoring partner of ASFA together with FAO, IOC and UNEP, joined also by 3 international partners, 23 national partners/input centres[61] and the publishing partner, Cambridge Scientific Abstracts. The Division monitors documents and publications relating to the law of the sea and other marine-related activities (ocean law, policy and management, technology and non-living resources) from which abstracts and bibliographical data are prepared for inclusion in the ASFA computer-searchable database and CD-ROM and the corresponding ASFA monthly journals. The printed journals and the CD-ROM are available in the Division for use by Division and other staff of the Office of Legal Affairs and by other United Nations staff. Non-United Nations users have access to the ASFA database at the purchase price on a subscription basis. Since joining ASFA in 1977, the United Nations has supported its maintenance and further development.

388. The annual ASFA Board meeting addresses policy and technical issues related to enhancing the effectiveness of ASFA and its usefulness to an expanding user community. The 1997 Board meeting (Gdynia, Poland, 22-25 April), with 28 participants, focused on approaches to expanding the use of the ASFA service and on ensuring that all input centres were in a position to provide input in electronic computer-transmitted format. Since March 1997, all of the Division's input has been provided this way.

389. The United Nations is currently developing an Intranet for its internal use. The Division will provide access to its CD-ROM server containing the ASFA CD-ROMs so that those databases will be available to anyone in the Organization for electronic search and retrieval over the full range of ASFA resources.

B. Capacity-building

1. Fellowship

390. The Hamilton Shirley Amerasinghe Memorial Fellowship on the Law of the Sea[62] was established by the General Assembly in its resolution 36/108 of 10 December 1981 in memory of the late Hamilton Shirley Amerasinghe, the first

President of the Third United Nations Conference on the Law of the Sea. Under the fellowship programme, the fellows pursue a postgraduate level research/study programme at a participating university of their choice for a period of not less than six months. Thereafter they work as interns in the Division for Ocean Affairs and the Law of the Sea for a period of approximately three months. Ten awards and one special award have been made under the programme since its inception. Fellows have come from the following countries: Nepal (1986); United Republic of Tanzania (1987); Chile (1988); Saint Lucia (1989); Sao Tome and Principe (1990); Croatia (1991); Thailand (1992); Kenya (1993); Seychelles and Cameroon (1994); and Tonga (1995). The fellowship is awarded by the Under-Secretary-General for Legal Affairs, the Legal Counsel, on the recommendation of an Advisory Panel consisting of renowned experts in the field of the law of the sea.

391. The following universities and academic institutions participate in the fellowship: Center for Oceans Law and Policy, University of Virginia, Charlottesville, Virginia; Dalhousie Law School, Halifax, Canada; Faculty of Law, University of Oxford, Oxford, United Kingdom; Faculty of Law, University of Southampton, Institute of Maritime Law, Southampton, United Kingdom; Graduate Institute of International Studies, Geneva, Switzerland; Institute of International Studies, University of Chile, Santiago, Chile; Marine Policy Center, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, United States; Netherlands Institute for the Law of the Sea, University of Utrecht, Faculty of Law, Utrecht, Netherlands; Research Centre for International Law, University of Cambridge, Cambridge, United Kingdom; Rhodes Academy of Oceans Law and Policy, c/o Aegean Institute of the Law of the Sea and Maritime Law, Rhodes, Greece; School of Law, University of Georgia, Athens, Georgia, United States; School of Law, University of Miami, Coral Gables, Florida, United States; School of Law, University of Washington, Seattle, Washington, United States; William S. Richardson School of Law, University of Hawaii, Honolulu, Hawaii, United States. The participating universities or academic institutions provide the fellow attending them all tuition free of cost. However, costs to cover travel, subsistence and book allowances are provided by the fellowship programme paid from its special fund.

392. The 1996-1997 fellowship was awarded to Ms. Alisi-Numia Taumoepeau, a Senior Crown Counsel from Tonga, who has just completed her scholar-in-residence programme at St. Anthony's College, Oxford University, United Kingdom. She is at present completing her internship programme with the Division.

393. The award for 1997-1998 was given to Mr. Dody Kusumonegoro, a Head of Section with the Directorate of International Legal and Treaties Affairs, Department of Foreign Affairs of Indonesia. He will carry out his scholar-in-residence programme at the School of Law, University of Miami, Florida, United States.

394. In the past the United Kingdom has made special contributions to fund a fellowship programme in a United Kingdom participating university. The Advisory Panel welcomed such contributions and expressed the hope that other countries might follow this example. It also encouraged the pre-selected candidates to apply directly to universities using the fellowship Advisory Panel as a reference.

395. Owing to the high calibre of candidates who apply each year for the fellowship, the Panel expressed the hope that individuals as well as foundations could also contribute to the fellowship fund. The Panel once more urged the Under-Secretary-General, the Legal Counsel, to explore the possibility of increasing the endowment so that the interest earned therefrom would enable it to award more than one fellowship per year.

396. The Advisory Panel will meet again later in 1997 to recommend a candidate or candidates for the next award.

2. Train-sea-coast programme

397. To date the Train-sea-coast programme has a total of 11 course development units (CDUs) in 10 countries. Two new CDUs joined the programme in 1996: Philippine Council for Aquatic and Marine Research and Development (PCMARD) and the Centre d'Études et de Recherches sur le Droit des Activités Maritimes (CERDAM), in France. PCAMRD is the first CDU located within a governmental institution at the departmental level.

398. The Central Support Unit at the Division for Ocean Affairs and the Law of the Sea continued to provide assistance to CDUs in the form of quality control of the courses under preparation, backup and direct support to CDUs and overall programme management and coordination. The following are some of the major activities implemented during 1997.

399. The first Train-sea-coast Coordination Conference (New York, 24-26 April 1997) brought together 10 managers of CDUs established in Brazil, Costa Rica, Fiji, France, India, the Philippines, Senegal, Thailand and the United States. The purpose of the Conference was to conduct a broad assessment of progress achieved by the programme over the last two years and establish policy for the Train-sea-coast network for the future, including a detailed plan of action for the next two years.

400. The Train-sea-coast policy and future directions for growth focus on: (a) strengthening of CDUs through human resources development, course sharing and financial support and outreach; (b) establishment of CDUs associated with UNDP field projects in coastal and ocean management; (c) expansion of the programme to include training in law of the sea related issues; and (d) strengthening of linkages with UNDP's Strategic Initiative for Coastal and Ocean Management (SIOCAM). Cooperation with the Train-x sister programmes is utilized as an avenue for inter-programme collaboration and joint course development. One instance of such cooperation was the joining of efforts by TRAIN-SEA-COAST and the cc:TRAIN programme to produce new training development guidelines and workshop materials. Both programmes are also collaborating in the development of a joint standard training package on climate change and coastal zone management for the Pacific region.

401. The second Course Developers Workshop (New York, 28 April-10 May 1997), which was held immediately after the Coordination Conference, trained 14 individuals (course developers) from existing and newly established CDUs as well as from other organizations. The training included the application of a

standard course development methodology for the preparation and delivery of training courses in the field of coastal and ocean affairs.

402. The Fifth Train-x Round Table was held in New York from 8 to 9 September 1997, with the participants of all the coordinators of the TRAIN-X sister programmes: Codevtel (ITU); Trainmar (UNCTAD); Trainair (ICAO); Trainfortrade (UNCTAD); Train-sea-coast (UN/DOALOS); Trainpost (UPU); cc:train (UNITAR) and Trainfish (FAO). The purpose of the round table was: (a) to review the activities carried out since June 1996 by all Train-x programmes; (b) to review the recommendations of the Fourth Round Table (June 1996); (c) to examine various modalities for further cooperation among sister programmes; and (d) to develop network activities for the next two years. The representative of ITU's Codevtel programme served as the Chairman of the Fifth Train-x Round Table up to its conclusion. The Coordinator of the Train-sea-coast programme will serve as the Chairman until the Sixth Train-x Round Table.

C. Information systems

403. The Division for Ocean Affairs and the Law of the Sea is continuing its activities with a view to strengthening its existing system for the collection, compilation and dissemination of information on the law of the sea and related matters, in accordance with General Assembly resolution 49/28. The Division has identified the Internet as a major tool for strengthening its information system. It allows the collection of materials (documents, reports, legislation, etc.) from a wide variety of sources (Governments, international organizations and competent institutions) in a cost-effective manner. It also provides users with convenient means for obtaining timely, well-organized and cross-referenced materials and information dealing with various aspects of the oceans, marine affairs and the law of the sea. In this context, the Division, which had a pioneering role in the initial United Nations efforts in 1995 to present information via the Internet to the international community, has continued to develop the "Oceans and law of the sea" Web site (http://www.un.org/Depts/los), as part of the Organization's Internet Web site.

404. The English version of the Web site has been publicly accessible for over a year. The Division, in conformity with United Nations policy, is gradually developing the French version as resources permit. The materials and information currently available on the Division's gopher site (gopher://gopher.un.org:70/11/LOS) are being gradually incorporated into the Web site. Together, the Web and the gopher sites at present provide general information on oceans and the law of the sea and also provide users with many documents, including the full texts of the Convention, the 1994 Agreement relating to the implementation of Part XI and the 1995 Fish Stocks Agreement, along with information on their current status. Information on the new ocean institutions established by the Convention, i.e., the International Seabed Authority, the International Tribunal for the Law of the Sea and the Commission on the Limits of the Continental Shelf, are also available. Users have access to many other selected documents and press releases, including reports to the General Assembly and verbatim records of General Assembly deliberations on the law of the sea and ocean affairs, as well as documents of the Meeting of States Parties and the Commission on the Limits of the Continental Shelf. A newsletter

on current developments in the field of the law of the sea and ocean affairs constitutes an important part of the Web site.

405. In its resolutions 49/28 and 51/34 the General Assembly called for the development, in cooperation with the relevant international organizations, of a centralized system for providing coordinated information and advice, inter alia, on marine legislation and policy. Aware of the strategic importance of the Convention as a framework for national, regional and global action in the marine sector, the Division recognizes the need to intensify the provision of coordinated and accurate information. To this end, the Division is developing the "Oceans and law of the sea" Web site as a single comprehensive source for diverse and issue-specific information. This includes carefully researched hyperlinks (currently a total of 114) to specialized agencies and international organizations where correct and authentic ocean-related information can be found. The Division itself maintains and further develops a number of databases which supplement the information provided through the Web and the gopher sites. At the same time, by providing links to the sites and databases of other organizations of the United Nations system, the Web site is becoming a centralized point of reference for information on oceans and the law of the sea.

406. One database maintained by the Division contains the national marine legislation of 146 States. There is also a growing database on bilateral treaties on delimitation of maritime zones (currently numbering over 200). Recent improvements in the structure of the databases as well as acquisition of new software now allow for a powerful, full-text search capability, thus strengthening the Division's capacity to research and analyse the practice of States. The output from these databases continues to serve as a useful tool for assisting States, particularity at the initial stages of their legislative process.

Notes

[1] See Official Records of the Economic and Social Council, 1996, Supplement No. 8 (E/1996/28), chap. I.C.

[2] Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992 (A/CONF.151/26/Rev.1 (Vol. I and Vol. I/Corr.1, Vol. II, Vol. III and Vol. III/Corr.1)) (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I: Resolutions Adopted by the Conference, resolution 1, annex II.

[3] These States are: Algeria, Angola, Antigua and Barbuda, Argentina, Australia, Austria, Bahamas, Bahrain, Barbados, Belize, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Cameroon, Cape Verde, Chile, China, Comoros, Cook Islands, Costa Rica, Côte d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Democratic Republic of the Congo, Djibouti, Dominica, Egypt, Equatorial Guinea, Fiji, Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Iceland, India, Indonesia, Iraq, Ireland, Italy, Jamaica, Japan, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mexico, Micronesia (Federated States of), Monaco,

Mongolia, Mozambique, Myanmar, Namibia, Nauru, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Philippines, Republic of Korea, Romania, Russian Federation, Saint Lucia, Samoa, Sao Tome and Principe, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, Somalia, Spain, Sri Lanka, St. Vincent and the Grenadines, St. Kitts and Nevis, Sudan, Sweden, The former Yugoslav Republic of Macedonia, Togo, Tonga, Trinidad and Tobago, Tunisia, Uganda, United Republic of Tanzania, United Kingdom of Great Britain and Northern Ireland, Uruguay, Viet Nam, Yemen, Yugoslavia, Zambia and Zimbabwe.

[4] The Law of the Sea: Declarations and statements with respect to the United Nations Convention on the Law of the Sea and to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (United Nations publication, Sales No. E.97.V.3).

[5] Curricula vitae of candidates are contained in documents SPLOS/17 and Add.1.

[6] References to those Conventions, including their status, can be found in The Law of the Sea: Multilateral Treaties - A Reference Guide to Multilateral Treaties and Other International Instruments related to the United Nations Convention on the Law of the Sea (revised and updated as of 31 December 1996) (United Nations publication, Sales No. E.97.V.9), pp. 80-118.

[7] China, Hong Kong, Indonesia, Japan, Malaysia, the Philippines, the Republic of Korea and Thailand participated in the Conference.

[8] See The Law of the Sea: Multilateral Treaties ..., pp. 84-94.

[9] See report of the fifth session of the Subcommittee, document FSI 5/16.

[10] See IAEA Draft Safety Series No. 3 annexed to MEPC 40/INF.4. Extracts from the Safety Series are contained in MEPC 40/14/3.

[11] Communiqué of the 28th South Pacific Forum, 17-19 September 1997. Document SPFS(97)13, paras. 31 to 34.

[12] The OSPAR meeting was held from 2 to 5 September 1997; draft 1998 Ministerial Declaration, OSPAR 97/8/8.

[13] Oxford, United Kingdom, Oxford University Press, 1997.

[14] See The Law of the Sea: Multilateral Treaties ..., pp. 30-80.

[15] Report of the Twenty-second Session of the Committee on Fisheries, Rome, 10-13 March 1997.

[16] Report of the first Meeting of Experts on Marine and Coastal Biological Diversity, Jakarta, 7-10 March 1997 (UNEP/CBD/JM/Expert/1/5) and report of the first meeting of the subsidiary body on scientific, technical and technological advice, Second Meeting of the Conference of the Parties to the Convention on Biological Diversity, Jakarta, 6-17 November 1995 (UNEP/CBD/COP/2/5).

[17] All the information provided in the regional review was included in the FAO documents "The state of world fisheries and aquaculture (1996)" and FAO Fisheries Circular Nos. 920, "Review of the state of world fisheries resources: marine fisheries (1997)", 921, "Fisheries and Aquaculture in Latin America and the Caribbean: Situation and Outlook in 1996"; and 922, "Fisheries and Aquaculture in Sub-Saharan Africa: Situation and Outlook in 1996", unless otherwise indicated.

[18] Communication from the Executive Secretary of ICCAT dated 3 February 1997.

[19] The New York Times, 10 December 1996.

[20] Communication by NAFO Executive Secretary dated 16 June 1997.

[21] Extract of the report ICES Advisory Committee on Fishery dated May 1997.

[22] Communication from the Commonwealth Secretariat dated 16 May 1997.

[23] Communication from the delegation of the European Commission to the United Nations dated 5 May 1997.

[24] The Toronto Star, 20 July 1997.

[25] Communication by IATTC dated 1 May 1997.

[26] Communication from FFA dated 27 June 1997; the text of the Majuro Declaration will be published in Law of the Sea Bulletin No. 35, in press.

[27] Antarctica falls under the purview of the Antarctica Treaty System.

[28] Communication from the CCAMLR: report of the fifteenth meeting of the commission (CCAMLR-XV), ISSN 1031-3184.

[29] Communication from the Permanent Mission of New Zealand to the United Nations dated 16 September 1997.

[30] North Atlantic Marine Mammals Commission News, June 1997.

[31] Document circulated informally by CPPS to the 19th special session of the United Nations General Assembly to review progress in the implementation of Agenda 21.

[32] World Resources 1996-1997, Guide to the Global Environment: The Urban Environment, prepared by the World Resources Institute, UNEP, UNDP and the World Bank, pp. 248-252.

[33] UNEP/CBD/SBSTTA/3/4, paras. 31-33.

[34] Ibid., para. 42.

[35] Marine pollution bulletin, vol. 34, No. 4, April 1997, p. 218.

[36] UNEP/CBD/SBSTTA, para. 34.

[37] Ibid., paras. 51-53.

[38] Offshore, vol. 57, No. 5, May 1997, p. 85.

[39] Ibid., vol. 56, No. 10, October 1996, p. 19.

[40] The Nikkei Weekly, 29 August 1996, p. 10.

[41] International Atomic Energy Agency (IAEA) Board of Governors General Conference, "Plan for producing potable water economically: Report by the Director-General to the Board of Governors and to the General Conference" (GOV/2855-GC(40)/4).

[42] Offshore, vol. 56, No. 10, October 1996, p. 10.

[43] See Official Records of the General Assembly, Fifty-second Session, Supplement No. 25 (A/52/25), annex.

[44] Report of the 27th session of GESAMP, para. 7.2.1.

[45] The text of the Convention, the Final Act and the resolution are available on the IAEA home page at http://www.iaea.org.

[46] The North Sea and most of the English Channel have been designated as a Special Area under annex V, which deals with the prevention of pollution from garbage from ships.

[47] IMO News 4:1996, p. 2.

[48] See report of the twenty-seventh session of the Joint Group of Experts on the Scientific Aspects of marine Environmental Protection (GESAMP), 14-18 April 1997, Nairobi, UNEP, July 1997, annex VI.

[49] WMO, document WMO-No. 860.

[50] Offshore, vol. 57, No. 5 (May 1997), p. 66.

[51] IMO, Marine Environment Protection Committee, "Application of MARPOL requirements to FPSOs and FSUs: Submitted by Greenpeace International" (MEPC/39/INF.24).

[52] Offshore, vol. 57, No. 2 (February 1997), pp. 57-58.

[53] See Official Records of the General Assembly, Fifty-second Session, Supplement No. 4 (A/52/4).

[54] Ukrainian Information Agency (UNIAN), 29 May 1997; Interfax News Agency (Moscow), 29 May 1997; Russian Information Agency, Itar-Tass, 31 May 1997; Agence France, Presse, 31 May 1997; Kievskie Vedomosty, 2 June 1997; Russian Information Agency, Itar-Tass, 2 June 1997; Financial Times (London),

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2 June 1997; *Ukraina: Chronika Podij*, 3 June 1997, Kyiv; *The Economist* (U.S. edit.), 7 June 1997; *Current Digest of the Post-Soviet Press*, vol. XLIX, No. 22, 2 July 1997.

[55] See *Official Records of the Economic and Social Council, 1997, Supplement No. 10* and corrigendum (E/1997/30 and Corr.1).

[56] A comprehensive, integrated Global International Waters Assessment (GIWA), encompassing the problems of freshwater basins, their associated coastal systems and the global oceans, is being prepared under the auspices of a Steering Group for GIWA (see UNEP (Water)/GEF-GIWA/4.2). Collaborative possibilities between GESAMP and GIWA assessments are being explored and a joint GESAMP/GIWA task force is being developed.

[57] Chapter 17 is entitled "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their resources". Programme area A: "Integrated management and sustainable development of coastal areas including exclusive economic zones"; programme area B: "Marine pollution (sea-based pollution/land-based pollution)".

[58] At its nineteenth session (January/February 1997), the UNEP Governing Council invited the Administrative Committee on Coordination Subcommittee on Oceans and Coastal Areas, in collaboration with its Subcommittee on Water, to perform the functions of a steering committee on technical cooperation and assistance for the Global Programme of Action, including activities related to the clearing house, with representation from regional and international organizations which have primary roles and responsibilities for its implementation (decision 19/14 A).

[59] See *Official Records of the Economic and Social Council, 1997, Supplement No. 9* (E/1997/29), chap. III.

[60] See E/CN.17/1997/2, paras. 71-74.

[61] International partners: International Center for Living Aquatic Resources Management (ICLARM)/International Council for the Exploration of the Sea (ICES)/IUCN, The World Conservation Union/The Pacific Islands Marine Resources Information System (PIMRIS). National partners: Argentina, Australia, Canada, Chile, China, Cuba, Estonia, France, Greece, Germany, India, Japan, Kenya, Lithuania, Mexico, Norway, Poland, Portugal, Russia, Sweden, Ukraine, United Kingdom and United States.

[62] See also A/52/524, paras. 34-47.
